

20.9.24
27.2.1975

ITDL

INTERNATIONAL JOURNAL OF DRAVIDIAN LINGUISTICS

Reg. No. 22651/72

VOLUME IV NUMBER 1

JANUARY 1975

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DEPARTMENT OF LINGUISTICS

UNIVERSITY OF KERALA, KARIYAVATTOM, TRIVANDRUM
INDIA

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The Journal will be a biannual in English of about 200 pages each, to be published in the first week of January and June each year.

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Guest Editors will be invited to supervise specialized issues. All manuscripts will be scrutinized by atleast two Referees and their names will also be published when the paper is printed.

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The manuscripts of articles should be submitted in triplicate typed double space with wide margins. Language data should be underlined with meaning in inverted commas. The system of footnoting and listing of bibliography will be those adopted in *Language*. The article if theoretically important will be treated as in *Current Anthropology* and published with comments and replies. Fifty offprints will be issued free of cost to the authors. Classical papers which are out of print will also be republished, if there is demand.

WHY CREATE A DEPARTMENT OF INDO- AFRICAN STUDIES AT DAKAR UNIVERSITY

L. S. Senghor

*President of the Republic of Senegal
Dakar*

Mr. Chancellor, Professors, Ladies and Gentlemen:

The *Institut fondamental d'Afrique noire*, as its name implies, is an institute of Dakar University geared primarily to fundamental research, particularly in the fields of the human and natural sciences.

As such, its essential aim is to study the *Black Men* of Africa—their prehistory and history, their languages and arts and, in general, the society where they have lived. In other words, the main purpose of the Institute is to prepare a systematic list of the physical and biological environment in which the Negro-African lives and moves and has his being, as well as to compile, conserve and enhance basic material necessary for a thorough understanding of Black Africa.

In short, IFAN is an organization whose primary purpose is to stimulate, promote and publish scientific studies on Black Africa in general, and West Africa in particular.

In other words, Senegal has in this university institution, a privileged instrument for the implementation of its cultural policy which is primarily the will to ensure that it is grounded in the values of Negro-Africa, in a word, in *Negritude*.

However, although its task was primarily to foster the cultural rebirth of Black Africa, IFAN has just extended its sphere of activity to the Indian sub-continent, by creating a *Department of Indo-African studies*.

Why this innovation? This is precisely what I wish to talk to you about today.

Before going any further, I should like to thank my countryman, Cheikh Tidiane N'Diaye, who is now preparing a thesis for a Doctorate on *Wolof* (one of the languages in the Senegalese-Guinean group) and the Dravidian languages. Through his research, he has been able to confirm what Miss Lilius Homburger, my professor at the *Ecole pratique des Hautes Etudes* in Paris, used to suggest to us, namely, the kinship of the Negro-African languages and the Dravidian languages. This lecture owes much to Mr. N'Diaye.

I

If I have decided that IFAN should bracket India and Black Africa for purposes of study in the same research department, it was for several reasons; some of them subjective, of course, but most of them objective.

The first of the subjective reasons is that, in terms of geography, the Indians are our neighbours, neighbours to us who live in the Sudanese-Sahelian zone. Besides, in the 50's, I met Mr. Malcolm Adiseshiah, who was then the UNESCO Deputy Director-General. We became friends and he revealed to me the realities of Dravidian life, which, ever since then I have found to be very close to the realities of life in Negro-Africa.

To come back to geography, southern India is in the same latitude as Senegal, Mali, Niger, Chad, Sudan, Ethiopia and Somalia. More than this, only the Indian Ocean separates the eastern coast of Africa from the south of India. As a matter of fact, geologists maintain that the Indian sub-continent was formerly attached to East Africa. In this respect the findings of marine biology are of outstanding importance.

All that is needed, therefore, is for archaeologists and prehistorians to have a chance to explore the depths of the seas, to discover old lithic industries or human skeleton fossils, in the area stretching from East Africa to southern India, unless, of course, the Indian Ocean existed long before the human race appeared. In any case, *Tamil* legends refer to the existence, from time immemorial, of flourishing cities long since buried beneath the seas.

This is perhaps a reference to that stretch of land which was supposed to have linked India and Africa and was presumably engulfed by the ocean during the Neolithic revolution, that is to say, the period of prehistory when *Homo Sapiens* achieved his "first revolution", by laying the foundations of the recorded civilizations through new techniques he had invented. I should like

in passing to note that it is not at all fortuitous that the early civilizations which arose in the valleys of the Nile, the Tigris and Euphrates, and lastly of the Indus, bore the marks of black men.

It might, however, be quite simply a vague memory of the universal flood to which the *Sangams* tried to give a poetic interpretation in their oldest literary masterpieces, such as the *Cilappatikaaram*.

In any case, it is remarkable that the pithecanthrop—proconsuls and australopithec—who whilst not the ancestors of the human species, are zoologically their next of kin as *infra* and *para-hominiens*, proliferated simultaneously in East Africa and southern India. Here is what Pierre Teilhard de Chardin wrote in his book *L'Apparition de l'Homme* (The Appearance of Man): “It was on a tropical and sub-tropical area of the Old World, an area which in fact extended across India to Malaysia, but basically located on the African continent, that the evolution of the higher primates gradually took place”.

Consequently, if it were established that East Africa and the Indian sub-continent had been linked, we would then have to qualify the thesis which claims East Africa as the cradle of Mankind, a thesis supported by many of the greatest prehistorians and anthropologists, amongst whom I shall mention Camille Arambourg and Henry Breuil, Louis S. B. Leakey and Van Riet Lowe, Marcellin Boule and Pierre Teilhard de Chardin. In other words, one should not consider only East Africa as the cradle of Mankind, but rather the area stretching from East Africa to southern India.

Thus re-stated, this theory would not be too much at variance with Islamic belief which claims that Adam, the father of Mankind, appeared in India and Awa, our maternal ancestor, in Southern Arabia, and that they met at Harafat. It is a curious coincidence, that *attan* is the word for “father” in Tamil (–n and –m being interchangeable in that language), and *avva* the word for “mother” in Kannada (*avvai* in Tamil, *av* in Koṭa, *ave* in Koḍugu).¹

But, beyond considerations of geography or even of geology and zoology, there are the links of *History*.

Indeed, because they are located on either side of Arabia and the Semitic world, it was quite natural that from the time the

1. Cf. *Dravidian Etymological Dictionary* by Professors Thomas Borrow and Murray B. Emeneau (sections 121 & 232).

Arabs began to penetrate into foreign countries, India and Black Africa should be the countries to have been first and most profoundly influenced by the Islamic movement. So much so, that the contributions of Arabo-Islamic civilization, in a word, of Arabity to Indianity and Negritude, are considerable and substantially of equal value. These influences are, in fact, reciprocal for, when the Semites arrived in the Middle East, they found black people living there already.

Besides, because they both were located at the crossroads of great lines of communication used by the colonial powers from the 15th to the 17th centuries of our era, to discover new lands, India and Black Africa were bound to feel the influence now of the Portuguese, now of the British, now of the French.

These facts explain why we have to this day, kept in India and Black Africa, the same vestiges of European colonization in various fields, particularly that of linguistics. For instance, I have just discovered that the Portuguese word *saboola*, "onion", produced on the one hand the Serer word *siboola*, and the Wolof *soble*; on the other hand, *saboola* in Malayalam, a language spoken in the Kerala State. Similarly, the Wolof word "key", *caabi* and the same word in many Indian languages, derive directly from the Portuguese *caavi*.

And much stronger still than the sentimental links of colonial history are the anthropological ones. I mean those links between the Dravidians and the Black Africans: the Negro Africans. It is indeed beyond question that the Dravidians share the same black blood as their brothers in Africa and those of the diaspora. The ancient Greeks did not err when they called all black peoples *Aithiopes*. They made a distinction only between the "eastern Ethiopians" or the Blacks from Asia and the "western Ethiopians" or Blacks from Africa. As they were keen observers, they subdivided these into "straight hair", "wavy hair" and "curly hair". I refer you to Snowden Junior's outstanding work "Blacks in Antiquity".¹

We know that some anthropologists tried to identify the Dravidians with what is known as "the Mediterranean race". Such a general label which conceals gaps in our knowledge of anthropology is indeed confusing – I had almost said dangerous, since it could suggest an interpretation of the concept of race in terms of geographical demarcation, whereas the notion of race, when stripped of

1. Harvard University Press, 1970.

certain accessory details boils down essentially to skin colour. This is the sense in which we speak of "black race", "white race" or "yellow race".

Consequently, it might have been less ambiguous, as some experts have done, to call that Mediterranean race the "Negroid race", since its characteristics are precisely those of the blacks in general: an elongated skull, dark or brown skin, these two adjectives being quite often euphemisms for "black". I refer you to Alexander Moret's description of the ancient Mediterraneans.¹ This is the place to mention once again the fact that the ancient Greeks did not label as white the former inhabitants of North-West Africa, that is to say, of the present Maghreb - Morocco, Algeria and Tunisia—since they called the inhabitants *Mauroi* or "Moors", meaning men with "a dark skin". And Herodotus tells us that the Colchidians, a Middle East people, were as "black as Egyptians".

In any case, as I stated in a lecture I gave at Cairo University in February 1967, on *The Foundations of Africanity or Negritude and Arabism*, my professor at the Ethnological Institute in Paris, Dr. Paul Rivet, used to say: "There is a ratio of 4 to 18 per cent black blood around the Mediterranean sea". He thus referred to the Negroids of the early Paleolithic and Mesolithic—Grimaldi Man and Capsian Man—an important group of the Mediterranean populations until the Neolithic.

Need I mention the other tendency met with among certain anthropologists and ethnologists, who classify the Dravidians and Ethiopians, the Somalis and Sudanese, the Nilotic people and Pheuls and Tutsis under the general label of "Hamitic race"? Here agains I would say that such a formula is confusing, for the Ethiopian, and those groups, although marginal are, undoubtedly, Blacks, as Berbers in general are marginal Whites. As a matter of fact, the word "Hamite" which does not refer to anything else but Black people—whether they are described as "marginal", if you wish, is only a political pretext. How indeed can we speak of "black-skinned" people who may not be deemed "Blacks" or "Negroes" and at the same time, describe very white skinned Americans as "Negroes" because they have a drop of black blood?

We shall not mention all the theories on the origins of the Dravidians, since the problem is still very much unsolved; we shall mention one only, namely, a black sub-race among the populations

1. *Histoire de l'Orient*, P. U. F., Paris, 1941, Vol. 1 p. 29.

of southern India. This said, we should not underrate the importance of the blood ties between Dravidians and Black Africans, especially as the black Dravidian sub-race is the same as the black East African sub-race which is to be found in the same latitude. During my last visit to Addis Ababa, I was very much impressed with the large number of Ethiopians who, with their fine features, black skin and straight hair, look like Dravidians. I mentioned this to the Emperor who, with a knowing air, merely smiled a royal smile.

In short, as we can see, the similarity between India and Black Africa, is essentially based on geography, anthropology and history.

It is this similarity that I would now like to develop by touching on culture, that is to say, on the values of civilization.

II

First, on the subject of ethnology, we have facts to which certain authors, particularly German ethnologists, have drawn attention.

Foremost among them is Leo Frobenius,¹ who had defined "Eritrean culture", as being probably the survival of *an ancient culture common to southern Asia — more particularly to India — and Black Africa*. This culture probably came to Africa via North and the South, on the one hand, from the Red Sea and Ethiopia, on the other, via the Mozambique coast.

Of the characteristics of this cultural cycle, I shall dwell mainly on *metallurgy* and *cotton spinning*, which will enable me to prove that, in actual fact, "Eritrean culture" is the survival of an ancient *Indo-African culture*. As a matter of fact, the vocabulary relating to metallurgy and cotton-spinning is exactly the same in the Negro-African languages and the Dravidian languages of India.

As regards metallurgy, the following comparisons might be made: in Wolof *xanjar*, "bronze", in Pulaar *xanjara*, "bronze", and in Telugu *xancara*, "work in bronze"; in Bambara *numu*, "forge", and in Telugu *inummu*, "iron"; in Wolof *kamara*, "name given to the blacksmith's caste", and in Telugu *kamara*, "name given to the blacksmith's caste". This latter name can be found in other Dravidian languages and in some Indo-Aryan ones as well. As to cotton spinning, the Wolof use of the word *ec*, "producing yarn from raw cotton", which can be compared with the Pengo verb *ec*, meaning "to card cotton".

1. Der Ursprung der africanischen Kulturen, Berlin, 1897-99

After Leo Frobenius, G. Montandon¹ defined *seven cultural cycles in Black Africa, four of which were supposed to be related to certain sectors in India, Malaysia and the Oceanic Islands*. Using D. P. de Pedral's² enumeration of the elements of these four cultural cycles, we have been able to detect the following elements:

(1) In the *totemic cycle* we have: *totemism*, the exogamic patriarchal clans, initiation tests for adolescent youth with sexual mutilations, the round hut with cone-shaped roof, the sheaf of the penis or the phallic sheaf and the *use of the assegai*.

(2) In the *paleo-matriarcal cycle* we have: the matriarcate, exogamic matrimonial classes, initiation ceremonies for women, secret societies for men wearing masks, ancestral worship, the mythology of the moon, magic, wooden drums, *the use of the hoe for tilling* and the square gabled hut.

(3) In the *neo-matriarcal cycle* we have: the matriarcate, monogamy, ceremonies accompanying the first menstrual period, ancestor worship, magic, trellis-work, basket making, ceramics, *the use of the hoe for tilling, the domestication of dogs and poultry*, and houses on stilts or pillars.

(4) In the *pastoral cycle* we have: animal husbandry, breast-feeding, metallurgy, social classes, the round-domed hut.

As you will have noticed, we have, in each of these cultural cycles, deliberately underlined one or two elements to indicate our intention to expand on them.

As regards *totemism*, it should be noted that the word *cubbaa* (D. E. D., 2203), which denotes the "peacock" in Kurukh, is to be found in the Wolof proper name *joob*, which is given to all the members of the clan whose totem is the peacock. People actually say, don't they, *jambë joob*, which means, "the peacock's name is Diob." Or again, *Jooba Juba*, which is a hypocoristic way of calling all the individual members of the group whose totem is the peacock. Moreover, Mr. Cheik Tidiane N'Diaye has told me that he discovered, among other things, the rule of phonologic similarity which is as follows: The sonorous palatal *j* in Wolof = the dull palatal *c* in Dravidian.

As regards *the use of the assegai*, the Wolof word *xeej*, "assegai", may be equated with the Gondi Muria term *kac*, "assegai".

(1) Cf. *Traité d'Ethnologie*, Paris, 1934.

(2) Cf. *Manuel scientifique de l'Afrique noire*, Paris, 1949.

The following morpho-phonologic rule should be noted in passing :
Wolof CVVC, Dravidian CVCC.

On the question of *the use of the hoe for tilling*, the Wolof word *konko*, "a curved hoe", is exactly the same as the Naiki word *konki*, "a curved hoe". I should like to refer you to the *Dravidian Etymological Dictionary*, 1689.

Where *the domestication of dogs and poultry* is concerned, one can easily identify the Wolof word *kuti*, "a pup", with the Tamil word *kuṭṭi*, "a pup" (D. E. D., 1390), also the Wolof word *kur*, which is generally used to call poultry, with the Kui *kuur* word used for calling poultry, as was noted by W. Winfield¹.

Lastly, turning to *animal husbandry* the following comparisons are quite significant. In Wolof *xar* "sheep", and in Brahui *xar* "a ram" (D. E. D., 943); in Wolof *nag*, "cow", in Serere *naak*, in Poular *nagge* and in Tamil *naaku*, "a female buffalo", in Tulu *naaku*, "a heifer", in Kota *nag*, "a young female buffalo from two to three years," (D. E. D., 3010); in Poular *mbeewa*, "a goat" and in Parji *meava*, "a goat" (D. E. D., 4174); in Serere *bir*, "to milk", in Poular *birde* and in Konda *pür*.

Apart from Leo Frobenius and G. Montandon, H. Baumann and D. Westermann also had a word to say about the ethnic relations between India and Black Africa. Indeed, in their work entitled *The Peoples and Civilizations of Africa*,² they hold the view that *certain farming methods in the "neo-Soudanese cultural cycle" (manuring the ground, terracing, irrigation canals, etc.) are due to a wave of men who came from southern India via Abyssinia or Ethiopia*. It would appear that the path they followed from the Nile to Senegal, was studded with certain agricultural implements as well as with megalithic monuments associated with agrarian forms of worship.

Still on the subject of the ethnic kinship between southern India and Black Africa, mention should be made of the works of André Leroi - Gourhan and Jean Poirier who, in their book on *The Ethnology of the French Union*,³ pointed out the similarity that existed between various articles found in Togo and those of India, such as war hatchets, daggers with ring-shaped hilts, ankle rings, etc. It is these very articles that D. P. de Pedrals had picked out

1. *A Vocabulary of the Kui Language*, Calcutta, 1929.

2. Paris, 1948.

3. Paris, P. U. F., 1935.

as being elements in Montandon's "Soudanoid cultural cycle, to which he had added *jewels matched by comparable ones in India*.

In short, it is in the context of all these ethnic affinities that Ratzel's famous dictum must be set: "Practically the whole of Africa seems to be one great unit of echoes from Asia attenuated in varying degrees."

We have been dealing with linguistics through ethnology. We should now like to go back and say a few words on the kinship of *Dravidian and Negro - African languages*.

In the 19th century, Alfredo Trombetti was one of the first to have the presentiment that Dravidian and Negro - African languages represented a common language, akin to Sumerian. Recently, in a letter to a Cameroonian friend, Father Englebert Mveng, on the deciphering of the writing of the first civilization recorded in the Indus valley, I wrote as follows: "You have probably thought, like me, of making a comparison between Egyptian, Dravidian and Sumerian writing. I have the impression that the same blood or, better still, the same spirit of the Blacks runs through those three civilizations."

In any case, it was Negroid people who first occupied the valleys of Egypt, Mesopotamia and North - West India where they founded the first agrarian civilizations in the Meolithic; "These first settlers of the eastern valleys", wrote Alexandre Moret, "were Negroid peoples who came from regions in India and Africa, driven north when the forests were transformed into savannahs and later into steppe - lands."

If I may make a digression on the relations between Sumerian and Dravidian, I would point out that A. Sathasivam of Colombo University, as everyone knows, took up an unambiguous position in this matter; he was sure Sumerian writing was a Dravidian language. I would refer you to the two following works: *Sumerian, a Dravidian Language*¹ and *The Dravidian Origin of Sumerian Writing*.²

This theory which it is difficult to refute, when one considers how pellucidly clear and profound the demonstration is, confirms the conclusion reached by Father H. Heras of Bombay,³ namely, that

1. Berkeley, 1965.

2. *Proceedings of the First International Conference Seminar of Tamil Studies*, Kuala Lumpur, 1966.

3. Cf. *Studies in Proto - Indo Mediterranean Culture*, Bombay, 1953.

the culture of Mohenjo - Daro and Harappa pre-dates Sumerian culture and, very likely, the latter was produced by the former.

The only difficulty surrounding the controversy about the Indus Valley civilization pre-dating the Sumerian, is that according to the archaeologists, Sir John Marshall and Sir Mortimer Wheeler, to be precise, the Mohenjo-Daro and Harappa civilization must have arisen during the third millenium before our era (2,800 B. C), while the Sumerian civilization was already in existence, 4,000 B. C.

But, according to Father H. Heras, the Proto - Indian people, the Dravidian people, as it happens, had distributed their zodiac signs and devised their system for the division of the time about 4,980 B. C. This view was confirmed by Father A. Romaña, who was at the time Director of *l'Observatorio del Ebro, Tortosa*, when he said that "the beginning of the Aries constellation, among the Mohenjodarians, coincided with the winter solstice that year (4,980 B. C.). In this way, Father H. Heras, with this declaration as a basis and his own reading of three inscriptions, asserted that "Mohenjo - Daro belongs to the fifth millenium before our era".

After this long digression, let us now go back to the kinship between the Dravidian and Negro - African languages, taking a look at the authors who have dealt with the subject.

Miss Liliás Homburger, in Jules Bloch's book *The Grammatical Structure of Dravidian Languages*, had recognized a number of morphemes which are to be met with in several Saharan idioms. Since then the idea of kinship between the Dravidian languages and certain Negro - African languages had become dear to her heart. And so she began to study in succession the Senegalese - Guinean languages, Mende, Bantou and ancient Egyptian, comparing them with the Dravidian languages. This is what led her to publish the following articles in turn: *Dravidian Elements in Pheul*¹, *The Telougou and Mende Dialects*², *The Canara - Bantou*³, *A Few Elements Common to the Egyptian and the Dravidian Languages*⁴, and *Sibilants in Sindo - African*.⁵

The point worth noting is that Miss Homburger was convinced of the things:

1. Journal de la Société des Africanistes, Paris, 1950.

2. *Ibidem*, 1951

3. This article forms a chapter in the work entitled *Negro - African Languages and the Peoples Who Speak Them*, Paris, Payot, 1957.

4. Kemi, 1957.

5. Journal de la Société des Africanistes, 1964.

(1) She was sure that "the Dravidian languages make it possible to explain the morphology of the Senegalese group, particularly Serere-Pheul.

(2) She was also convinced that there is a kinship between Kannada and the Bantu languages.

Indeed, the Bantu infinitive with a final -a, the subjunctive in -e, the preterite in -i or -idi, the doer's name in -i, are to be found with similar values in Kannada and in other Dravidian languages. The Bantu causal suffix is -is, and Kannada a suffix -is/-u performs a similar function. The dative -ku is characteristic of of the Bantou groups and Kannada (and other Dravidian languages): it is a prefix in Bantu and a suffix in Kannada.

Unfortunately, Miss Homburger did not live to carry her theories to completion.

It is also worth drawing attention to Edwin H. Tuttle's publication on *Nubian and Dravidian*. The article, ten pages long approximately, is a brief census of facts rather than a detailed study. Besides, it sheds no light on the nature of the kinship between Nubian and Dravidian.

The only complete study so far undertaken is a thesis which is now being prepared by a Senegalese, Cheik Tidiane N'Diaye on *The kinship between the Wolof and Dravidian Languages*. This thesis to which I attach great importance, deals with phonology, morphophonology, grammar (morphology and syntax) and lexicology. We hope the writer of the thesis has derived the maximum benefit from the three years he spent at Annamalai University as *Senior Research Fellow*.

If I have endeavoured in this paper to advance reasons why the *Institut fondamental de l'Afrique noire* (IFAN) has created a *Department of Indo - African Studies* it is, as you can imagine, to come to the following conclusion. It is of great advantage that Dravidians and the Black people of Africa should get together and investigate, through fundamental research, the points of convergence or rather of kinship in the values of the civilizations characteristic of the two black worlds — the world of the Black Dravidian and the world of the Black African.

I should like, by way of conclusion, to return to Lilius Homburgar, or to put it differently, to the time when, as a young Professor of French, Latin and Greek, I also attended lectures in prehistory and linguistics at the Paris Institute of Ethnology and the *Ecole pratique des Hautes Etudes*.

It was then that I began to develop a certain vision of the past of the Black peoples. In the Neolithic period, they occupied our *fertile Crescent*, and laid the foundations of *Civilization*. By "fertile Crescent", in this particular context, I mean the arc of a circle stretching from the straits of Gibraltar to the north of the Indo - Chinese peninsula. Actually, the Black peoples occupied the Mediterranean basin and the whole of Southern Asia with the Middle East, the Indian sub-continent and the Indo - Chinese peninsula. It was they who laid the foundations of the first recorded civilizations of Egypt, Sumer and India.

The poetic works of the ancient Greeks were not mere flights of fancy, because they were in fact *poïesis*, that is to say, the expression of human realities. As far as the ancient Greeks were concerned, the Ethiopians, in other words, the Blacks were the oldest inhabitants on earth and had invented religion and law, art and writing.

When in those years, I looked at pictures reproduced in books, I mean pictures illustrating the pottery and sculpture of the early civilization of the Indus valley, I was struck by a similarity in their style and the style that obtained in Black Africa. Therefore, I was not in the least surprised when in 1962 a *flash* from UNESCO announced that the writing of that early civilization expressed a Dravidian language.

I managed to get hold of the pamphlet in which Mr. Asko Parpola of the Scandinavian Institute of Asiatic Studies told the story of how that writing was deciphered. The scholar reveals the fact that the language was a Dravidian language and that Hinduism was nothing more than the religion of the ancient Dravidians. It was a religion not far removed from that of the ancient Egyptians with their animal gods, but a religion thought out afresh by Aryan minds.

This was the confirmation of the theory which, as a militant for Negritude in the years 1930, I upheld with my friends Aimé Césaire and Léon Damas. That theory was and still is that far from being ashamed of our black skin and our original values of civilization, we should be proud of them. For, in the words of Césaire, who invented the term *Negritude*, we are "the world's elder sons". And I will say that before we became consumers, we had been for thousands of years the first producers of civilization.

And yet, the point is important, it is miscegenation which has led to the development of the civilizations history has known, whether in Egypt, Sumer or India. A civilization with no admixture

is a cultural ghetto. As the French anthropologist Paul Rivet pointed out, all the earliest civilizations in history which were produced in the Mediterranean latitudes were the results of miscegenation of Blacks and Whites, or of the Black and the Yellow peoples. The merit of these civilizations and, above all, of Indian civilization, is that they have embodied the dichotomic reason of the Whites in the intuitive reason of the Blacks — and it is said that the Yellow people have something of them both — the purest mind in the most rhythmic, the most living flesh. And this is the ideal of every great civilization. In any case, it is the ideal of *Pan - Human Civilization* which is being hammered out in this second half of the twentieth century, with the participation of all nations, particularly the three great ethnic groups and the offspring of their miscegenation.

*Text of the address delivered in Madras, 1974, by President Senghor.

NOTE

ON PHONETIC TRANSCRIPTION

In preparing the text of my lecture, I have had to use a uniform transcription for the Dravidian languages and those of the Senegalese-Guinean group. In doing so, I have made use of the Senegalese transcription of the Dravidian languages.

Here are a few details which will help the reader find his way about :

- (1) Plosives belonging to the Senegalese - Guinean group are written with a circumflex accent over the consonant, e. g. sérère *bir*, "to milk".
- (2) Palatals are indicated as follows: *j*, *c*, *ñ*, *y*.
- (3) Long vowels are indicated by a double vowel.
- (4) Nasal consonants are given a very simple notation: e. g. *nc* not *ñc*, *nk* not *ñk*. Not

ADDRESS TO THE DRAVIDIAN LINGUISTS

Surnad Kunjan Pillai

Trivandrum

*May I first of all express my deep sense of gratitude to the General Body of the Dravidian Linguistics Association for the great honour done to me by electing me President of the Association for 1973-1974. I deem this as a token of good will on the part of that august body towards Malayalam, one of the fast-developing members of the Dravidian family. It also behoves me to record our grateful appreciation of the great objectives of the Association for promoting the cause of the Dravidian family of languages—developed ones like Tamil, Malayalam, Kannada and Telugu, as well as undeveloped ones like Tulu, and more than a score of languages and dialects current in different parts of India, Pakistan and Afghanistan, not to mention many other foreign countries where Dravidian communities inhabit in large numbers. It is our earnest hope that this Association will afford the necessary impetus to the study of our languages in the light of the science of linguistics, and will serve to interpret the Dravidian culture to the rest of India and to the world at large. With that glorious perspective in view, I now wish godspeed to the deliberations of our Association, which I am sure, will lead us forward in the scientific pursuit of the discovery and assessment of our languages—our most precious possessions.

The great service that this Association aims to render is to promote the linguistic exploration of the Dravidian Languages, developed as well as undeveloped ones. As grammatical discipline forms an important part of ancient Indian culture, a word of explanation is necessary regarding the special contribution of linguistics to the study of our languages. The phenomenal advancement made in recent times in our knowledge of the history and nature of our languages may be

* Presidential address of the IV All India Conference of Dravidian Linguistics, Madras, June 1974.

appreciated if it is pointed out that till a century ago even the conception of family-relationship of the speeches now recognized as Dravidian had not dawned.

It is a matter of common knowledge to the students of our history and culture that grammatical study had reached the zenith of glory in *Bharatavarsha* millennia ago in the *Pratisakyas*, and in the *Nirukta* of Yaska, Panini and others. But it deserves to be pointed out that in the early stages and for a long time, this intellectual activity was confined to Sanskrit, the language of gods and *Rshis*, used as the medium of Pan-Indian literary production as well as higher culture. It is also worth mentioning that in those ancient times the claims of languages other than Sanskrit were either ignored or relegated to the background by grammarians as well as by intellectuals who had little consideration for proletarian speeches. Even in course of time when grammatical examination was extended to other languages like Tamil (in *Tolkappiyam*, A. D. 2nd century) the study was made not through intrinsic method of analysis, but from the point of view of Sanskrit grammar. (See *The History of Tamil Language and Literature*.) Until modern times, the same course was followed in respect of Telugu, Kannada and Malayalam, the genius of which requires a different kind of treatment.

This attitude of comparative disregard of the Dravidian Languages or in some cases belated and wrong recognition as unrefined jargons of the *Devabhasha*, either part of their grammatical study or to neglect them tended to generate incorrect theories about their affinity and structure. True, in the case of Tamil an independent origin was always claimed, notwithstanding the fact that it too came under the deep influence of early Indo-Aryan from very early times (certainly before the 4th century B. C.), but greater affinity with Sanskrit was traced in respect of other South Indian languages without taking into account their grammatical features quite unlike those of Sanskrit, but closely akin to Tamil. This was naturally because of the overdomineering hold of Sanskrit over these languages—a fact which calls for careful study by the students of the history of these idioms. This excessive influence of Sanskrit while making invaluable contribution to the general growth and development of our languages tended to obscure their real affinity and the inherent characteristics. This point will be clear when it is recalled that orthodox scholars and grammarians of the old school even up to the last century maintained the Sanskrit-origin of the South Indian languages now regarded as belonging to the Dravidian stock. The case of Malayalam which is closest in its kinship to Tamil is a convincing instance to illustrate the point. Even so late as in 1875 the grammarian Kovunni Nedungadi traces the source of Malayalam

(*Keraḷa bhashā*) from Sanskrit; comparing *Keraḷa bhasha* to the river Ganges which takes its rise from the Himagiri of Sanskrita and joins with *Draviḍa vāṇi* which occupies only the position of kaṇḍaja-Jamna. But now it is established beyond doubt that the relation of *Keraḷa bhasha* with Sanskrit and *Draviḍa bhasha* is quite the reverse, i. e. Malayalam takes its rise from Draviḍa (not Sanskrit), and mingles with *Sanskrita* during its onward course of confluence in the form of *Maṇi-pravāḷa* (during the Middle Malayalam period).

Similar specious theories existed in respect of other Dravidian languages also till comparative methods of philological examination was brought to bear on the study of these languages by Dr. Robert Caldwell, the great pioneer in the field of comparative grammar of our languages (1856). The contribution of that renowned philologist and other distinguished linguists and grammarians who followed him led to the real discovery of Dravidian family of speeches—a remarkable advancement in our grammatical thought and a magnificent achievement in the sphere of world linguistic knowledge.

One thing deserves to be specially noted in this context, viz. the conception of language-families, for we have projected the idea of Dravidian family as an advanced stage in our linguistic knowledge. The idea of genetic relationship of groups of languages was a new dimension to philological thought developed in Europe in the early part of the 19th century through comparative study of European languages with Sanskrit, leading to the discovery of Indo-European family of speeches. It is nevertheless noteworthy in this context that in respect of Indian languages also the idea of family affinity was adumbrated long ago—as Aryaan languages of North India, and Andhra, Draviḍa dialects of South India. Particular mention has to be made the reference to the Dravidian family made in *Līlātilaka* (15th C.) the grammatical and rhetorical Sanskrit treatise on *Maṇipravāḷam*—a mixed dialect of Malayalam and Sanskrit. But, beyond such passing references, no appreciable attempt was made for substantiating the idea or even formulating the theory till the time of Caldwell. In the absence of comparative and historical investigation, examination of individual languages as pointed out above could not achieve a correct perspective in linguistic pursuit. Specious theories on philological questions, as well as fantastic and fanciful derivations of words propounded by some traditional scholars, reveal the extent to which lack of knowledge of philological principles misleads one to erroneous conclusions. The importance of studying the language on the basis of comparative philology may be clear from the foregoing.

If the last century could take pride in having laid the foundation of comparative grammar, the present century, particularly our generation, is making a steady contribution to the advancement of the science of languages. Descriptive, historical and comparative grammar, family affinity of languages, phonemics and phonetics, morphological features, syntactical principles, theories of meanings and semantics, etymological investigations, indigenous words and loans, synchronic and diachronic systems of grammatical treatment, transformational analysis of sentence construction, structural characteristics, dialect variations, bilingualism and multilingualism, speech-defects and aphasia, cultural fusion through linguistic contacts, literary and conversational forms, and many more allied subjects have immensely enlarged the scope of linguistic vision. This broad indication will serve to point to the vast field awaiting exploration by the rising generation of our philologists and linguists. As this discipline has made remarkable progress in the West, we derive ample inspiration and admirable examples for adoption and emulation in the study of our languages.

Considerable work has been done in grammatical studies in respect of the developed languages of the Dravidian family, viz. Tamil, Malayalam, Kannada and Telugu by traditional grammarians; and in recent times efforts are being made for linguistic examination of select subjects relating to the speeches of the family mostly by scholars belonging to linguistic departments under Universities. One cannot also ignore the valuable work done by scholars like L. V. Ramaswami Aiyar. But a comprehensive and co-ordinate endeavour is essential in the present stage to assess the work already done, and to plan the future lines of research so as to cover all the cognate speeches, and also all aspects relating to them. I do not know whether the Association has already a scheme of the nature I have in view, and whether work is already in progress in regard to the several subjects to be studied. How one would ardently aspire to have a Reference Manual on Dravidian languages containing brief accounts of all the languages and dialects of the family, the work done in respect of each, with full bibliographical data, and essential items of further researches to be undertaken.

Now special mention has to be made about certain items of essential work to provide tools for further researches in the study of our languages. Handbooks of grammar with full glossaries of the several undeveloped languages of the family form one of the foremost requirements. The work done for the Parji language by Prof. T. Burrow and S. Bhattacharya is a good example in this

respect. Likewise, the importance of historical grammars as well as comprehensive philological lexicons of the developed language has to be emphasised as no advanced study is possible without the aid of such works.

In view of the special course of development of our languages, they have undergone substantial changes in every aspect, and these call for the attention of the grammarian and the lexicographer. Their intimate contact with other languages, particularly early Indo-Aryan and Sanskrit demand due recognition. The foreign elements in them occupy the same position of importance as the indigenous factors. This fact makes it obligatory that for a full treatment all the component elements, indigenous as well as foreign, have to be taken up for consideration. The point may be illustrated through the case of Malayalam whose present alphabet itself shows a total mingling of Dravidian and Sanskrit letters. The period of acquisition of Sanskrit letters by Malayalam for the purpose of borrowing Sanskrit words in their *tat-sama* forms (ie. original forms except in respect of morphology) marks an important stage of transition (during Middle Malayalam). Had it not been for this borrowing, Malayalam would have remained almost a dialect of Tamil even to this day with its original Dravidian alphabet and Dravidianized loans from Sanskrit and other languages. But, in this historical background look at present-day Malayalam which is one of the most (if not the most) Sanskritized languages with not less than 85 percent of its vocabulary adopted from the Aryan speech, besides several other foreign features acquired during the last thousand years. No doubt, there may be differences in this respect in the case of several languages, especially Tamil which shows a remarkable tenacity in retaining Dravidian features and resisting foreign intrusions; but the fact of admixture of extraneous elements is a significant factor in the case of any language, not excepting Tamil. The need for treating the foreign elements in vocabulary as well as in grammatical features thus becomes imperative, and it is of the utmost importance for a proper understanding of the languages in their spoken and literary forms. The great dictionaries of the English language presenting its vast wealth of vocabulary derived from several sources—Greek, Latin, Romance languages of Europe, etc. — provide us with proper perspective in this matter.

An important fact claims notice in regard to the dictionaries of our languages from the above-noted points. To the students and teachers of languages, they are the reference-books, and reference is more often made not about indigenous words which are familiar, but

about unfamiliar words mostly of foreign origin found in written language. In dictionary which does not furnish the leanings and other relevant information on such words naturally fails to satisfy those who refer to them. To continue the example of Malayalam, the importance of loan-words in the language especially from Sanskrit, is only too well known, not only for a proper understanding of classical works but even for contemporary literature. It would never be proper to leave the students to Sanskrit dictionaries for loan-words from that language found in Malayalam works, as the majority of students will not be able to recognize the source-language of the words, or to Sanskrit dictionaries. There is another aspect also relating to this matter, and that is in regard to the new meanings acquired by Sanskrit and other foreign words in the borrowing languages. It will be a grand project of semantic study of Sanskrit words borrowed by the different languages are laid under examination with a view to discovering the changes in form and meanings undergone by them. I do not know how many of our scholars have bestowed any serious thought on this subject which has its own importance from the point of view of linguistics. I wonder whether a non-Malayali Scholar proficient in Sanskrit knows that several Sanskrit words have quite new meanings in Malayalam not found in Sanskrit dictionaries, e. g. uydōgam (M. government appointment); samsāram (M. conversation); upanyāsam (essay). Even, apart from this semantic aspect, on a general view the whole field of spoken and written forms of the language should be covered in a comprehensive lexicon of the language so as to serve the needs of all who may refer to it.

Now we may turn to another aspect of the service which our Association has a duty to render. In a country like ours where many languages are spoken, a Linguistic Association has a vital role to play in cultural fusion and national solidarity. Our Association, with its particular bias for Dravidic studies, has the natural obligation to interpret the cultural contribution we have made, and to acknowledge the debt we owe to others. Love of one's mother tongue is a most noble quality, but catholicity of outlook reckoning every language as a precious human heritage is an equally great virtue. This grand message of the linguistic discipline has significance for the whole humanity, but has a special value to us having a multiplicity of national languages. The endeavour of our Association should, therefore, be the realization of the integrated Arya-Dravida culture enshrined in the languages of our mother land — *Bharata varsha*

There is a still more valuable service to be fulfilled by our Association primarily for the Dravidian languages, but at the same

time for Indian culture in general. More than due recognition has been given to the indebtedness of Dravidian languages to Sanskrit; but it has to be emphatically pointed out that the Dravidian contribution to the Aryan Speeches remains a most neglected subject of investigation. If an organized endeavour is made to trace the non-Aryan elements in Aryan languages (including Sanskrit and the several Prakṛts) and co-ordinate them with Dravidian elements, we are sure to acquire a most profitable field of research and achievement.

The foremost of our duties is to understand the Dravidian family as a whole and foster the feelings of fraternity among the several members, and then to expand our activity to the farthest limits of the discipline. But, it is a strange paradox that our acquaintance with our sister language is very much less than our knowledge of many other alien tongues. It is, therefore, a matter of gratification that some work is now done in a few centres for conducting short-term training courses in some of the Dravidian languages—Tamil, Kannada, Telugu and Malayalam—for the benefit of alien students. The work done in this matter by the Linguistics Department of the University of Kerala deserves warm praise.

Now in the brief time I can reasonably take, and with my limited knowledge of the subject, I do not feel justified to say anything more. Nor do I think it necessary, as the scholar and savants assembled here are well aware of the advancement already made and the responsibilities awaiting their attention. I may, therefore, conclude by placing on record our appreciation of the working of the D. L. A. and the several centres of linguistic studies under South Indian Universities – of Kerala, Annamalai, Mysore, Madras, Karnataka, Osmania, Andhra and Tirupati. I am glad that I can personally testify to the valuable work carried on in some of these centres.

We have now to thank the University of Madras for the encouragement it gives to the linguistic study under it, and for the generous hospitality extended to us.

May I now conclude by wishing a most glorious future to the D. L. A., the great organisation of the languages and culture of the Dravidian people.

TWO MALAYALAM INSCRIPTIONS FROM COORG

K. G. Krishnan
Mysore

The two inscriptions discussed here have been recently published with illustrations in the revised edition of *Epigraphia Carnatica*, Coorg District. They are engraved respectively on a stone in the Mahāliṅgēśvara temple at Pālūru in Madikeri Taluk and on a stone in the Bhagaṇḍēśvara temple at Bhāgamaṇḍala in the same Taluk (Nos. 20 & 21)¹. They are stated to be engraved in mixed characters such as Grantha, Malayalam, Tamil and also a few Vaṭṭeluttu characters. The language is stated to be a combined one comprising of Tamil, Malayalam, and Tulu. It is assigned to about the 14th century. It is proposed to examine here the nature of the script and the language, and to determine the period of the inscriptions as well, which are illustrated here.

The first inscription (A) begins with an invocatory verse in Sanskrit in *anushṭubh* metre stating that the donor executes the grant after paying his obeisance to the deities Vināyaka and Sarasvatī. This is followed by prose passages indicated numerically in the text given in the sequel. The first passage (lines 4-6) states that this is the stone-edict made to Pālayūr-Mahādēva by Bōdharūpa-bhagavar, the disciple of Avidyāmṛityu-bhaṭṭāraka of the illustrious Purushōttamaparshat. The second passage (lines 7-11) states that this stone-edict was executed and placed under the protection of any member of the four groups: 1) the Śrīvaishṇavas of the eighteen countries, 2) the Vaṣaṇjiyar of the eighteen countries,

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1. These two inscriptions have been noticed as *A. R. Ep.*, 1912, Nos. 624 and 625. The language and the script are given as Tamil and Grantha but *contra*. discussion below.
 2. The author is thankful to the Director, The Institute of Kannada Studies, Manasa Gangotri, Mysore-6, for the illustrations.

3) the 'several thousand armed group of the eighteen countries', and 4) the brāhmaṇas of the eighteen countries. The third passage (lines 11-19) states that those who do not carry out the provisions of the arrangement made with reference to the *dēvasthāna* at Pālūru by the Śānti, i. e. the priest worshipping in the temple, will incur all the sins (usually listed in the imprecatory sections of South Indian Inscriptions). The fourth passage (lines 19-26) requires the groups, the Valaṇjīyar of the eighteen countries, the *nālumuttāmay-āḷ* and the munnūrka (?) to have the register of the temple treasury taken out once a year, read out and then verify the current arrangement, and to have the arrangements (for the conduct of the temple affairs) revised according to the register.

The second inscription (B) begins with two *anushṭubh* verses in Sanskrit forming a *kuḷaka*. It is in the form of a statement made by the donor himself that on the day of Uttarā, Thursday in the month of Vṛischika when Bṛihaspati (i. e. Jupiter) was in Kanyā, he (Bōdharūpa) made the grant at Bhagaṇḍāśrama after paying his obeisance to his teacher. This is followed by prose passages. The first passage (lines 5-10) places on the chief the responsibility of seeing that all the people living in the *nāḍu*, including male and female, do not fail to carry out even for one day the arrangement made for the daily expenses as laid out in the copper-plate caused to be engraved by Bhōdharūpabhagavar in the presence of Mēlpūṇḍi-Kunniyarasan ruling over this *nāḍu*. The second passage (lines 10-13) states that the defaulters are required to pay 12 *kāṇam* of gold and twice the daily offering for a day, and if discontinued for a week, 12 *kaḷaṇju* of gold of 7 *mārru*¹ to be paid to the reigning chief. The next passage (lines 13-18) lays down the specified arrangement as follows: 17 perpetual lamps, 26 *nāḷis* of rice per day for food offering to be made over to the temple by the *poduvāḷar*, 4 *nāḷis* (of rice) for flowers out of which *maṇchu* garland should be prepared, and 32 *vriṣchika* lamps, etc.—all these the worshipping priest (*śānti*) fixed with reference to this (*dēva*) *sthāna*. This is followed by the usual imprecatory portion with the slant of local usages freely mixed up (lines 18-25). The next passage (lines 25-27) states that 2½ *kāṇam* should be paid as fine per day if the five services including the playing of drum (*paḍaka*) for the assembly and the service of (reciting) Mahābhārata are not conducted properly. The last but one passage states that the entire transaction is placed under the protection of the 'Paḍai-piḍichcha pallāyiravar'

1. This is similar to carat, the highest being 10½.

of the eighteen countries and the Vaḷaṇchiyar. The last passage provides for the consultation of the records in the treasury of the *maṭha* by the ascetics and the ruling chief. The record ends with the signature of Pakaṇḍala āyāri (i. e. the *āchāri* of Bhagaṇḍālaya).

The Date

Inscription B gives the astronomical details, viz.: Jupiter in Kanyā, Vṛiśchika month, Bṛihaspati-dina, i. e. Thursday and Uttarā-dina, i. e. the day on which the star Uttarā, i. e. Uttara-Phālguna occurs. The expression *Uttarādinē* in the text has been interpreted as 'the day after Bṛihaspati'.¹ But this interpretation ignores the length *rā* of *Uttarā* which should otherwise be *Uttarē*. Therefore it is clear that the star is meant. The combinations recorded in this inscription occurred only on November 2, A. D. 1363 which was a Thursday. This is the only possible date falling within the span of a period from A. D. 1292 to A. D. 1460. The relevance of this period will be explained in the sequel under the section on script. The date given here is based on the calculations made by us in accordance with the method and the tables laid down in the *Indian Ephemeris*, Vol. I, part I, pp. 118 ff. and Table V B.

The Language

The inscriptions begin with verses in Sanskrit followed by prose passages in Malayāḷam. At first sight one will be tempted to identify the language of the prose passages as Tamil since the structure is not different from that of Tamil; but the text, after line 11 in A and line 6 in B, contains certain dialectal peculiarities which occur consistently, e. g. *piḍichcha*, *amaichchān*, *vachchu*, *keṭṭi*, *peṇḍilai āṇa*, etc. These distinctly prove that the forms which were often considered to be corrupt, have come to stay as the inherent part of the structure. This feature prompts us to consider the language as Malayāḷam than as Tamil.² The common features between Tamil and Malayāḷam present in this inscription only reinforce the correctness of the fact of their common origin. The exact point of departure from the main stem, of an independent existence and evolution remains to be clearly enunciated.³

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- 1 *Epigraphia Carnatica*, Coorg District, Vol. I (Reprint), Introduction, p. xvi and p 76.
 - 2 I leave it for scholars in Tulu elements in this record stated to be present (*ibid*).
 - 3 *The Journal of Kerala Studies*, Vol. I, Nos. 2 & 3, pp. 137-41, for a preliminary attempt by the author to trace the beginnings of Malayāḷam.

The Script

It is stated that the inscriptions are engraved in mixed characters such as Grantha, Malayālam, Tamil and also a few Vaṭṭeḷuttu characters. Here again it will be found that the forms of most of the letters suggest only their affinity to Grantha; but they are not like the *Grantha* of the contemporary period obtaining in Tamil Nadu. The forms seen in the present records show marked difference from the Grantha characters seen in the inscriptions of the 13th 14th centuries in Tamil Nadu¹. The looped *ya* is a typical example. This form has ceased to be used in Grantha, long before the 13th century, but it has survived in Kerala to the period of our record. The form of this letter in modern Malayālam would have had its origin through this looped form which occurs only in Early Grantha. In the case of other letters it will be seen that angularities tend to become curves and vice versa. Besides, another tendency that influenced the evolution of Malayālam from Grantha is the cursive nature of its writing. The vertical forms tend to be slanted to the right or left, more often to the left as in the case of *ta* and *na*. The letter *na* has completely become horizontal from its vertical form in the earlier period. But the Grantha script in Tamil Nadu retained its angular and curving forms till they were permanently fixed by the introduction of the press.

The presence of the few Vaṭṭeḷuttu forms like *ṇa*, *tu*, *ṛu*, *ḷa* and *ya* needs no special explanation. The Tamil language along with the Vaṭṭeḷuttu script was used in Kerala from early times. The fast and vigorous spread of Sanskrit by the Vedic Brahmanical institutions percolating down to the masses through the popular medium of the stage has created the need for a script which provides for *varga* letters of the Sanskrit alphabet. This need was satisfied by the ready use of Grantha which was already there in adjacent Tamil Nadu. It is well known that many of the early inscriptions in Kerala have used Grantha for writing the Sanskrit texts and Vaṭṭeḷuttu for the local dialect. It was only a matter of regular evolution thereafter for Grantha to shape itself into Malayālam.

This inscription cannot be placed prior to the 13th century in view of the fact that we have to provide for a span of, say, one or two centuries from early Grantha of the 11th century which was yet to become settled in Tamil Nadu and also in Kerala. This

1. *Ep. Ind*, Vol. III, pp. 7-17 and plate.

opinion is, however, subject to the discovery of any new early Malayāḷam inscriptions which may throw light on the gap or interval adumbrated here between the Early Grantha and Early Malayāḷam. The astronomical details discussed in the section on the date above provide the upper limit for this gap.

The contents

A summary of the contents of both the inscriptions was given above. It is proposed to discuss here a few of the points on which more can be said from the point of view of other aspects.

Both the inscriptions record the arrangement made by Bōdharūpa-bhagavar. We come to know about him from both the inscriptions that he was the disciple of Avidyāmṛityubhaṭṭāraka of the Purushōttama-parshad which was housed in the Bhagaṇḍāśrama. It appears that there was an *āśrama* at Bhāgamaṇḍala, the findspot of the second inscription which was run by a learned body called Purushōttama-parshad presided over by ascetics among whom Avidyāmṛityubhaṭṭāraka and his disciple Bhōdarūpa-bhagavar are known through this record. The names of these two persons point to the spiritual and intellectual nature of their life. The suffix *bhaṭṭāraka* of the name of the first person reflects his eminent status as a great teacher, while the suffix *bhagavar* of the name of the second person signifies his spiritual eminence. The word *bhagavar* is apparently connected with *bhagavat* meaning the divine. Its association with *Vishṇu* coupled with the word Purushōttama in the name of the *parshad* over which he presided suggests the divine nature of this person. The word *bhagavar* has come to be used in Tamil language in the *Divya-prabandham* of the Vaishṇava āḷvārs, to refer to the *tridaṇḍi* ascetic devotees of Vishṇu.¹ We come to know through this record the existence, in the 14th century, of a great centre of learning and religious activities nurtured in the midst of the sylvan settings of Kuḍagu-nāḍu i. e., Coorg.

The arrangements recorded in the inscriptions were sought to be placed under the protection of the three groups Padineṇ-dēśi Vaḷaṇjiyar, Padineṇ-dēśip-Paḍa-piḍichcha Pallāyiravar and the *brāhmaṇas* of the eighteen (Padineṭṭu-nāḍu) countries. The enumeration of the figure 'eighteen' has not so far been given in any source known to epigraphy. But the commentary on the famous Tamil grammatical work *Nannūl* of the 13th century for *sūtra* 272

1. M Raghava Iyengar, *Āḷvārgaḷ-kālanilai*, pp. 8-9. Note also the use of the word *Pagavan* or *Bagavan* (*Bhagavan*) in Tirukkuḷal (1st couplet).

lists them as follows: Chiṅṅalam, Chōnakam, Chāvakam, Chīṅṅam, Tuḷuvam, Kuḍagam, Koṅkaṇam, Kannaḍam, Kollam, Teliṅṅam, Kaliṅṅam, Vaṅgam, Gaṅgam, Magadam, Kaḍāram, Gauḍam, Kōśalam and Tamiḷagam. The inclusion of Chāvakam, Chīṅṅam and Kaḍāram indicates that the organisations mentioned above were widespread with international affiliations cutting across political and geographical frontiers, with its orientation towards the north, east and south-east from Eastern and Southern India. Evidently the local branch organisations affiliated with this international body were entrusted with the task of protecting the charity. The *Vaḷaṇjiyar* is a well-known group of merchants. The group *Paḍapiḍichchapallāyiravar*, meaning 'the several thousand holding arms', i. e. a group of armed men could very well be the militia men who escorted the merchants in the course of their peregrinations for purposes of trade. The association of these two groups is confirmed also by two inscriptions, in *Vaṭṭeḷuttu* of about the tenth century from *Urmēṇiyalaḡiyāṇ* in Tenkasi Taluk, Tirunelveli District, Tamil Nadu, in one of which the merchant body called *tiṣai āyiratt-aiṇṇūḡḡuvar* is mentioned, and in the other the group called *paḍai-piḍitta Pallāyiravar* is referred to.¹ It is surprising that this organisation of armed groups had survived down to the times of the present record, incidentally also attesting to its influence in distant areas.

The local Chief's name Kunniyarasa of Mēlpūṇḡi is interesting. Mēlpūṇḡi is apparently the name of a place which I am unable to locate now. The name Kunniyarasa suggests that the person belonged to Kerala where we meet with such names as Kunhi for Kunni which itself might have been derived from Kunju which means 'the young' of any species. The Chief bearing this name had evidently extended his influence into Coorg District during this period, though we are not informed whether he was acting at the instance of any bigger ruler of those times in Kerala or on his own. We know for certain about such a possibility for the simple reason of the contiguity of the area which borders on the west, the northernmost districts of Kasaragode and Koḷikhoḡ (Calicut) and on the south by the district of Wynad. The inscriptions are engraved perhaps in Malayāḷam on account of the fact that the Chief was of Kerala origin. It should be noted also that on the social side the mingling of the people from the west and south might have made Malayāḷam intelligible to the local people for whom the inscriptions were intended.

Another point suggesting the introduction of the system of administration from the west coast is the mention of the name

1. *A. R. Ep.*, 1918, Nos. 615 and 616 of 1917.

'Poduvālar' in line 14 of the text of the second inscription. Poduvāl was the designation of an officer in the local administration at the village level, executing the orders of the local assemblies in Keraḷa especially during medieval times.

The gap in the political history of the area during this period preceded by the rule of the Chaṅgāḷvas and followed by the appearance of the Vijayanagara rulers on the scene can be filled up by suggesting the rule of Chiefs like Kunniyarasa, though it is too early now and risky also to assign the same importance which we may attribute to the Chaṅgāḷvas and the Vijayanagara rulers. Further the phrase *nāḍu vāḷāniṛka* used for Kunniyarasa suggesting the rank of a local ruler or governor for him, leaves some information yet to be collected regarding the then suzerain on the west coast. It is not unlikely, however, that Kunniyarasa took advantage of the Muslim invasion of the preceding decades and the time taken for the Vijayanagara rulers to rise and expand in the wake of the invasion.

TEXT A

- 1 Svasti śrī / Vināyakam viśēshajñam
- 2 gurun = Dēvīm Sarasvatī [|] namaskṛitya yathā
- 3 śaktyā karishyē śāsanam śubham [||] Svasti śrī /
- 4 śrīmat-Purushōttama-parshad-Avidyāmṛityu-bha
- 5 ṭṭāraka-śishya Bōdharūpa-bhagavar Pāla-
- 6 yū [r] m = mahādēvark [ku] cheyda śilā-śāsana-
- 7 m [1] Padineṇḍēśi-Vaḷaṇchiyar Padineṇḍē-
- 8 śip-paḍa piḍichcha Pallāyiravar Padineṭṭu
- 9 nāṭṭu brāhmaṇar = ivagaḷil = kaṇḍār kaṇḍ-i
- 10 rakshikka kaḍavar = eṇṇu cheyda śilā-śā
- 11 sanam = āvadu [2] Śāntinoḍu pūv-i-sthā-
- 12 nām nōkkiy amachchān = amachchapadi
- 13 ttān = āgil tan = tandayaikoṇṇu
- 14 tāyai kaḷatram vachchun = tām piṇanda
- 15 nāḍu vāḷum = araśait-tān = koṇṇ = ava-
- 16 n nāṭṭul valattu keṭṭiy iḍattu piḍichchā-
- 17 nai mūkk-aṇutt-avan = peṇḍilai kaḷa-
- 18 tram vachchān = paḍak-kaḍava daṇḍam paḍak-ka
- 19 ḍavan [3] nityach-chelavum-mikka saṁketam
- 20 gaḷum Śrī-bhaṇḍārap-pottagam—āṭṭ-o

- 21 rukkāḷ=eḍuttu vāśippitt=adil=paṭṭapa
 22 ḍi chellāda chilavu cheluttakkaḍa
 23 var padineṇ-ḍēśi Vaḷa [ṇchi]
 24 yar nālu muttāmay-aḷum=munṇūṛka [mu] ntā [yi]
 25

TEXT B

- 1 Svasti Śrī [/] Namaskṛitya gurum bhaktyā/Kanyā -
 2 rūḍha-Bṛihaspatau [/] Vṛiśchik = ākhyē mahā-mā
 3 sē Bṛihaspaty-Uttarā-dinē [/] Karishyē śāsanam sa-
 4 rvvam / gurōr - ānanda-rūpiṇaḥ [/] śāsanam Bōdaarūpō-
 5 ham śrī-Bhagaṇḍāśramē = pi hi || Mēlpūṇḍi
 Kunniyarasan = nā
 6 ḍu vālānikka śrīmat-Purushōttama parshad = Bōdharūpa
 7 Bhagavar = arasu muntāych = chaivitta chepp-eṭṭil =
 agappaṭṭa nichcha-
 8 ch = chilav = aḍayav = oru nāl tappichchānukkuk =
 Kunniyarasan = mu
 9 ntāy = āṇ-peṇṇ-agappaḍa mēl = in-nāḍu vaḷak-kadava
 [v = a] ra
 10 san-āṇa [i] āṇat-tappu panniraṇḍu kāṇam pon-kā
 11 sanmi oru nālukkku iratṭippaḍi dēvarkku appaḍi āchchi
 12 vaṭṭam adil = ēṇil panniru kaḷaṇju ponn =
 13 ēḷu māṇṇu arasukku [i] nandāvilakku padinēḷu / nāl-amu
 14 du mudal-āy poduvāḷar = iḍakkaḍava (v = ariy = iruvatt-aṇu)
 15 nālī / Oḷukkavikk = iru nālī pushpattukku nānālī
 16 āga māṇchu-māla muppattiraṇḍu Vṛiśchika-viḷa
 17 kk = ādi śāntinoḍu pūv-i-sthānan = nōkkiy = amachchā-
 18 n = [i] amachchapaḍi cheluttān = ākil = tān = piṇanda
 nāḍu vā-
 19 ḷum = arasanai kula karudum = āṇa avan = nāṭṭi
 20 l valattu kaṭṭi iḍattu piḍichchānai mūk-ka
 21 ṇuttu (t = a) van-peṇḍilait = tān = kaḷatra vachch [ān] = paḍa
 22 kkaḍava daṇḍam ivv-āṇa mīṇānānai kaṇḍum
 23 kēṭṭum = upēkshittu pōm = arasukku tan = nāṭṭil = prakṛi-
 24 tiy = āṇa [/] āṇa tappi nāḍu viḍuvitt = aiyattukku
 25 viḍakkaḍavar [/] prakṛita-paḍakam = muntāye paṇiyaḷu
 26 Mahābhāratam oṇṇu ich-chilavil = oṇṇu tappi -
 27 l nālukk = iraṇḍ-araik-kāṇam [i] padineṇḍēśi pa-
 28 ḍa piḍichcha pallāyiravar / Vaḷaṇchiyar / rakshikka Va
 29 kaṇḍālaiya / sanyāsikaḷumm = arasum = muntāya
 30 idil = mikkadu bhaṇḍārap-pottaka [tti] lum
 31 chepp- eṭṭilum-uraka Pakaṇḍala āyāri [e] ḷuttu

1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100. 101. 102. 103. 104. 105. 106. 107. 108. 109. 110. 111. 112. 113. 114. 115. 116. 117. 118. 119. 120. 121. 122. 123. 124. 125. 126. 127. 128. 129. 130. 131. 132. 133. 134. 135. 136. 137. 138. 139. 140. 141. 142. 143. 144. 145. 146. 147. 148. 149. 150. 151. 152. 153. 154. 155. 156. 157. 158. 159. 160. 161. 162. 163. 164. 165. 166. 167. 168. 169. 170. 171. 172. 173. 174. 175. 176. 177. 178. 179. 180. 181. 182. 183. 184. 185. 186. 187. 188. 189. 190. 191. 192. 193. 194. 195. 196. 197. 198. 199. 200. 201. 202. 203. 204. 205. 206. 207. 208. 209. 210. 211. 212. 213. 214. 215. 216. 217. 218. 219. 220. 221. 222. 223. 224. 225. 226. 227. 228. 229. 230. 231. 232. 233. 234. 235. 236. 237. 238. 239. 240. 241. 242. 243. 244. 245. 246. 247. 248. 249. 250. 251. 252. 253. 254. 255. 256. 257. 258. 259. 260. 261. 262. 263. 264. 265. 266. 267. 268. 269. 270. 271. 272. 273. 274. 275. 276. 277. 278. 279. 280. 281. 282. 283. 284. 285. 286. 287. 288. 289. 290. 291. 292. 293. 294. 295. 296. 297. 298. 299. 300. 301. 302. 303. 304. 305. 306. 307. 308. 309. 310. 311. 312. 313. 314. 315. 316. 317. 318. 319. 320. 321. 322. 323. 324. 325. 326. 327. 328. 329. 330. 331. 332. 333. 334. 335. 336. 337. 338. 339. 340. 341. 342. 343. 344. 345. 346. 347. 348. 349. 350. 351. 352. 353. 354. 355. 356. 357. 358. 359. 360. 361. 362. 363. 364. 365. 366. 367. 368. 369. 370. 371. 372. 373. 374. 375. 376. 377. 378. 379. 380. 381. 382. 383. 384. 385. 386. 387. 388. 389. 390. 391. 392. 393. 394. 395. 396. 397. 398. 399. 400. 401. 402. 403. 404. 405. 406. 407. 408. 409. 410. 411. 412. 413. 414. 415. 416. 417. 418. 419. 420. 421. 422. 423. 424. 425. 426. 427. 428. 429. 430. 431. 432. 433. 434. 435. 436. 437. 438. 439. 440. 441. 442. 443. 444. 445. 446. 447. 448. 449. 450. 451. 452. 453. 454. 455. 456. 457. 458. 459. 460. 461. 462. 463. 464. 465. 466. 467. 468. 469. 470. 471. 472. 473. 474. 475. 476. 477. 478. 479. 480. 481. 482. 483. 484. 485. 486. 487. 488. 489. 490. 491. 492. 493. 494. 495. 496. 497. 498. 499. 500. 501. 502. 503. 504. 505. 506. 507. 508. 509. 510. 511. 512. 513. 514. 515. 516. 517. 518. 519. 520. 521. 522. 523. 524. 525. 526. 527. 528. 529. 530. 531. 532. 533. 534. 535. 536. 537. 538. 539. 540. 541. 542. 543. 544. 545. 546. 547. 548. 549. 550. 551. 552. 553. 554. 555. 556. 557. 558. 559. 560. 561. 562. 563. 564. 565. 566. 567. 568. 569. 570. 571. 572. 573. 574. 575. 576. 577. 578. 579. 580. 581. 582. 583. 584. 585. 586. 587. 588. 589. 590. 591. 592. 593. 594. 595. 596. 597. 598. 599. 600. 601. 602. 603. 604. 605. 606. 607. 608. 609. 610. 611. 612. 613. 614. 615. 616. 617. 618. 619. 620. 621. 622. 623. 624. 625. 626. 627. 628. 629. 630. 631. 632. 633. 634. 635. 636. 637. 638. 639. 640. 641. 642. 643. 644. 645. 646. 647. 648. 649. 650. 651. 652. 653. 654. 655. 656. 657. 658. 659. 660. 661. 662. 663. 664. 665. 666. 667. 668. 669. 670. 671. 672. 673. 674. 675. 676. 677. 678. 679. 680. 681. 682. 683. 684. 685. 686. 687. 688. 689. 690. 691. 692. 693. 694. 695. 696. 697. 698. 699. 700. 701. 702. 703. 704. 705. 706. 707. 708. 709. 710. 711. 712. 713. 714. 715. 716. 717. 718. 719. 720. 721. 722. 723. 724. 725. 726. 727. 728. 729. 730. 731. 732. 733. 734. 735. 736. 737. 738. 739. 740. 741. 742. 743. 744. 745. 746. 747. 748. 749. 750. 751. 752. 753. 754. 755. 756. 757. 758. 759. 760. 761. 762. 763. 764. 765. 766. 767. 768. 769. 770. 771. 772. 773. 774. 775. 776. 777. 778. 779. 780. 781. 782. 783. 784. 785. 786. 787. 788. 789. 790. 791. 792. 793. 794. 795. 796. 797. 798. 799. 800. 801. 802. 803. 804. 805. 806. 807. 808. 809. 810. 811. 812. 813. 814. 815. 816. 817. 818. 819. 820. 821. 822. 823. 824. 825. 826. 827. 828. 829. 830. 831. 832. 833. 834. 835. 836. 837. 838. 839. 840.

HISTORICAL CHANGE AND SYNCHRONIC STRUCTURE: THE CASE OF THE SANSKRIT VOCATIVE SINGULAR OF \bar{a} -STEMS

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0: The purpose of this paper is a twofold one, namely (a) to account for the aberrant ending $-e$ from earlier $*-\bar{a}y$ of the Sanskrit vocative singular ending of \bar{a} -stems, as compared to the ending $-\bar{a}$ or $-\bar{a}$ indicated by the other Indo-European languages (cf. for instance GK. *númphā* beside dial. *númphā*),¹ and (b) to determine the synchronic structure of the singular oblique of the Sanskrit \bar{a} -stems, for which compare the following partial paradigm.

| | |
|-------|---------------------|
| eg. N | <i>sen-ā</i> 'army' |
| I | <i>sen-āya</i> |
| D | <i>sen-āyai</i> |
| G/Ab. | <i>sen-āyās</i> |
| L | <i>sen-āyām</i> |
| V | <i>sen-e</i> |

1: As for the synchronic derivation of the oblique singular of the \bar{a} -stems, I am aware of only one hypothesis within the framework of generative phonology, namely that contained in Kiparsky, 1971.

1.1: According to Kiparsky, forms like the dative singular *senāyai* are derived from underlying forms in stem-forming suffix- \bar{a} -plus case ending by a process of y -insertion between the vowel of the stem-forming suffix and the initial vowel of the case ending.

This analysis appears quite attractive at first blush, for the process of y -insertion might be considered part of a general Sanskrit

* Paper read at the 1972 Meeting of the Mid-America Linguistics Conference, October 14, 1972. To appear also in the *Proceedings* of the Conference.

conspiracy to avoid vowel clusters.² In addition, the Early Middle Indic dialect of Pāli offers clear independent evidence for such a process of *y*-insertion which is not dependent on the phonetic quality of the preceding vowel; cf. the following partial paradigms.³

| | <i>ĩ</i> -stems | <i>ũ</i> -stems |
|-------|-----------------|-------------------|
| sg. N | <i>av-i</i> | <i>krat-u</i> |
| I | <i>av-i-y-ā</i> | <i>krat-u-y-ā</i> |
| | etc. | etc. |

And it might be argued that the Pāli situation results from a simple extension of the principle of *y*-insertion to the *u*-stems.⁴

1.2: However, closer examination of the facts reveals that Kiparsky's analysis cannot be considered satisfactory for the Old Indic dialect of Sanskrit. For, not only is there any independent evidence for *y*-insertion after non-front vowels; more importantly, in order for Kiparsky's analysis to work for the instrumental singular of the *ā*-stems, with its short *-āyā*, rather than the predicted long *-ā-y-ā**, an ad-hoc shortening process would have to be invoked for the vowel of the stem-forming suffix.

A similar problem exists as far as the ending *-e* of the vocative singular is concerned, which must reflect a derivationally earlier short */-āy/*. Moreover, it would be difficult to account for the derivationally earlier final */-y/* of the vocative singular ending by means of the process of *y*-insertion, since by definition this process requires (vocalic) segments to occur on either side of the inserted *y*, and such a segment is patently absent to the right of the final */-y/* of the vocative singular.

An analysis which avoids these difficulties would therefore appear preferable.

2: Also the historical derivations of the vocative singular ending *-e* which have so far been proposed cannot be considered satisfactory.

2.1: The earliest explanation known to me is the connection of the Sanskrit ending *-e* with the ending found in such Greek vocatives as *Lētoĩ* 'O Latona' (cf. Pott 1836:443; Ahrens 1854:83, 87 8; Windisch 1869:228; Schmidt 1885:380-92, 1912:400.)

In its most updated version this view is quite acceptable from a purely phonological point of view. In this version, the *y*-forms occurring in *all* of the Sanskrit oblique singular, including the vocative, are considered to owe their existence to a blending of the

Proto-Indo-European \bar{a} -inflection with an inflection in PIE $*-\bar{o} (y) / \bar{o}y-$.

The starting point for this blending is considered to have lain in the fact that already in Proto-Indo-European, $*-\bar{o}y-$ is said to have become $*\bar{o}$ before consonant or in word-final position, and that subsequently this $*\bar{o}$ merged with PIE $*\bar{a}$ due to the regular Indo-Iranian merger of Proto Indo European non-high vowels to \bar{a} -vowels. These phonological developments brought about the similarities and differences between the inflection of the $*-\bar{o} (y) / \bar{o}y$ -stems and that of the $*\bar{a}$ -stems illustrated by the following partial paradigms.⁵

| | \bar{a} -stems | $\bar{o}y$ -stems |
|-------|--------------------------|---|
| sg. N | $*-\bar{a}$ | $*-\bar{a}$ ($< *-\bar{o} < *-\bar{o}y$) |
| D | $*-\bar{a}y$
etc. | $*-\bar{a}yay$ ($< *-\bar{o}y-ey$) ⁶
etc. |
| V | $*-\bar{a}$ | $*-\bar{a}y$ ($< *-\bar{o}y$) |
| pl. I | $*-\bar{a}-bhis$
etc. | $*-\bar{a}-bhis$ ($< *-\bar{o}-bhis < *-\bar{o}y-bhis$)
etc. |

The formal identity of the surface forms of the nominative singular and instrumental plural (and similar forms with consonant-initial case endings following the stem-forming suffix) then can be assumed to have led to a complete merger of the two inflectional classes, such that in the dative singular (and similar forms with vowel-initial case endings) there was a blending of the \bar{a} - and $\bar{o}y$ -forms of the sort $*-\bar{a}y$ X $*-\bar{a}y\bar{a}y \rightarrow *-\bar{a}y\bar{a}y$ (whence $-\bar{a}yai$), and in the vocative singular the ending of the $\bar{o}y$ -stems ($*-\bar{a}y > -e$) won out.

2.2: Although, as pointed out earlier, this explanation is quite acceptable from a purely phonological point of view, it must be considered quite dubious from a morphological point of view.

First of all, Szemerényi (1956: 192-3, with earlier literature) has expressed what appear to me justified doubts concerning the originality of the Greek type *Lētoi-*, as well as of certain alleged Indo-Iranian relics of this inflection (such as Skt. sg. N *sakhā* 'friend', A *sakhāyam*, I *sakhyā*).

Secondly, the ablaut distribution of the stem-forming suffix $*-\bar{o} (y) / \bar{o}y-$ which must be postulated by this hypothesis in order to arrive at the (partial) paradigms given above and thus to motivate the alleged blending of the two inflectional classes, namely extended grade in the nominative singular, as well as in the instrumental plural and other cases with suffix-initial consonant, versus full grade

elsewhere, is without precedent in terms of what we know about Proto-Indo-European nominal ablaut. One would rather expect extended grade in the nominative singular, full grade (> *guṇa* or *vṛddhi* depending on the environment)⁶ in the accusative singular, locative singular, vocative singular, and nominative plural,⁷ and Ø-grade elsewhere. And, with the exception of the vocative singular (which is *sakhyau*), this is incidentally the (original) pattern actually found in the paradigm of the alleged Indo-Iranian relic of the *ōy*-inflection, namely that of *sakhi*- 'friend'; cf. the examples given earlier in this section.

Finally, it is doubtful whether **ōy* regularly lost its *y* before consonant. This development seems to be limited to the so-called Schulzian bases (such as **pō (y) / pī*- 'drink'); and unlike the alleged Proto-Indo-European stem-forming suffix under discussion, the Schulzian bases do not exhibit a (regular, original) phonetic difference between extended-grade **ō(y)* and full-grade **ōy*.

If then a different, morphologically more acceptable explanation of the Sanskrit facts can be found, that explanation would have to be considered eminently preferable to the explanation just discussed.

2.3: Another quite popular view holds that the Sanskrit ending *-e* is related to the final *-ai* of the Greek vocative singular *gúnai* 'O woman'. Cf. for instance; Ahrens 1854:16-7;⁸ Meyer 1875:121. Pedersen 1902:408-9;⁹ and most recently, Watkins 1967:114, fn. 37 (on p. 119).¹⁰

2.4: Though this hypothesis is impeccable from a purely phonological point of view also, it must be considered dubious.

For, as Schmidt (1855:381, fn. 1) and, following him, Brugmann (1907:174-8) plausibly argued, the vocative *gúnai* may just as well be the regular endingless vocative singular, with regular phonological loss of final *-k*, of the stem *gunaik-* found throughout the rest of the paradigm of the word for 'woman', except for the nominative singular *gunē'*; cf. for instance, sg. G *gunaik-ós*. As such, however, the final *-ai* of *gúnai* would not be equatable with the Sanskrit ending *-e*; for, unlike Greek, Sanskrit (a) has no rule deleting final stop consonants and (b) has no evidence for a stem in *-aik-*.

It is true; also Armenian shows a stem in final *-ay-* in the word for 'woman'. And here this stem even occurs without a final *-k*; cf. sg. N *kin*, plural stem *kanay-*. However, in Armenian this stem in final *-ay-* is limited to the plural, making it likely that this *-ay* originally was at home only in the plural and making it possible that the *-y-* of this formation is an original plural marker (cf. the

pronominal plural marker **-y* in PIE **to-y* 'those') whose function subsequently was lost track of.

Even if the *-ay-* Armenian should be directly related to the *-aik-* of Greek, however, this Graeco-Armenian formation in *-ay(k)-* may well be one of a number of other, independently established common innovations of Greek and Armenian (such as the development of prothetic vowels, for which cf. Cowgill, 1965:151). And as such it would be of no value for the comparative reconstruction of Proto-Indo-European. As a matter of fact, considering that the Armenian evidence just discussed would seem to indicate that the *-ay(k)-* originally was at home in the *plural*, this *-ay(k)-* can hardly serve as evidence for the reconstruction of the Proto-Indo-European *ā*-stem vocative *singular*.

Finally, it is by no means clear how the Graeco-Armenian *-ay(k)-* would fit into what we know about the Proto-Indo-European system of morphological and phonological alternations.

If then a different explanation of the Sanskrit vocative singular in *-e* can be found, sound method would seem to require considering the Graeco-Armenian forms a regional innovation, not related to the Sanskrit *-e*, rather than (by reconstructing Proto-Indo-European source forms back-projecting the morphological difficulties of Armenian and Greek (and of Sanskrit) into the proto-language.

2.5: Also the (quite tentative) connection of the Sanskrit ending *-e* with the Lithuanian vocative singular ending *-ai* (as in *Jōnai* 'O Jonah', from *Jōnas*), advanced by Leskien (1876:76) and Bezzenger (1889:299), is phonologically quite straightforward, but morphologically dubious.

For, as Bruckner (1179:275-6) and similarly Schmidt (1885:381, fn. 1) correctly pointed out, the Sanskrit ending *-e* is always feminine and is found in the Indo-European *ā*-stems, while the Lithuanian ending *-ai* is always masculine and is found in the Indo-European stems in *-ō / ě-*. Moreover, as pointed out for instance in Stang, 1966:183, it is quite evident that the Lithuanian *-ai* is a late replacement of the inherited masculine ending *-ĕ*.

2.6: Yet another view, advanced by Collitz (1905:104-8 and 1921:10, fn. 1) and, following him, Meillet (1906:233), holds that besides the inflection in *-ā / ə-*, Proto-Indo-European had another, parallel inflection in *ā(y) / əy-*.

As in the case of the alleged *-ō(y) / ǝy-* stems, it is assumed that long diphthongs regularly lost their glide element before consonant

and word-finally. And, as in the case of the hypothesis discussed in sections 2.1-2 above, the two competing feminine paradigms are considered to have come to be partially formally identical, as can be seen from the following pre-Indo-Iranian partial paradigms.

| | <i>ā</i> -stems | <i>āy</i> -stems |
|-------|--------------------------|---|
| sg. N | *- <i>ā</i> | *- <i>ā</i> (< *- <i>āy</i>) |
| D | *- <i>āy</i>
etc. | *- <i>āy-ey</i>
etc. |
| V | *- <i>ə</i> | *- <i>ey</i> |
| pl. I | *- <i>ā-bhis</i>
etc. | *- <i>ā-bhis</i> (< *- <i>āy-bhis</i>)
etc. |

And again, as in the case of the hypothesis discussed in sections 2.1-2 above, this partial formal identity is considered to have led to the complete merger of the two competing inflectional classes, such that in the dative singular (and similar forms with vowel-initial case endings) there was a blending of the *ā* and *āy* - forms of the sort *-*āy* X (*-*āy-ey* >) *-*āy-ay* → *-*āy-āy* (> *āyai*), and in the vocative singular the ending of the *āy*-stems (*-*əy* > *-*ay* > -*e*) won out.

2.7: Like the hypotheses so far discussed, also this explanation of the Sanskrit vocative singular ending -*e* must be considered morphologically dubious.

For, as Pokorny (1914: 288) correctly pointed out, it is methodologically objectionable to set up a whole new inflectional class in the proto-language, for the sole purpose of thus permitting a straightforward phonological derivation of otherwise aberrant forms. Such a procedure would merely back-project the difficulties with these aberrant forms into the proto language, rather than explain them.¹¹

In addition, in light of the plausible arguments offered by Kuiper (1947: 210 with fn. 53) in favour of deriving the short vocative singular ending -*ā* of some of the non-Indo-Iranian languages from a full-grade *-*eA*, the Ø-grade vocative singular endings -*ə* and -*əy* postulated by the hypothesis under discussion must be considered doubtful.

Finally, this hypothesis is dubious even from a purely phonological point of view. For, as forms like *d(i)yati* 'binds' from *-*de-ye-ti* = *-*dE-ye-tt* (cf. Gk. *dēō* 'bind' > *-*dE yo-A*) show, a Proto-Indo-European ending *-*əy*, if it existed at all, should have become *-*iy*, rather than the *-*āy* postulated by this hypothesis.

Actually, however, in word-final (and preconsonantal) environment, an original sequence **Hi* should be expected to have vocalized as **Hi*, not as the $\text{Hy} = \text{*}\bar{a}y$ postulated by the hypothesis under discussion. And this **Hi* would have yielded the same result as the alleged vocative singular ending **-ə* of the regular \bar{a} -stems, namely *-i**.

2.8: According to yet another view, the vocative singular ending *-e* owes its origin to the addition of a deictic marker or interjection \bar{i} to the original ending **-ā* of the vocative singular. Cf. Scherer 1868 : 288; Hirt 1927 : 102'; Burrow 1955 and 1965 : 234; and (tentatively) Thumb - Hauschild 1959 : 47.

However, also this view cannot be considered satisfactory. For, an interjection \bar{i} seems to be nonexistent, at least in the earliest layer of Sanskrit, that of the Rig-Veda. And the addition of a deictic marker *-i* to a vocative form would be without any plausible motivation or known precedent.

2.9: The case is not much better as far as the two exclusively morphological/analogical explanations known to me are concerned.

According to a view advanced by Kurylowicz (1935:39, 1968:220, with 1964:220) and in essence adopted by Szemerényi (1970:173), the original vocative ending **-ā* was replaced by **-āy > -e* to avoid homonymy with the nominative singular or, in the case of original **-ā*, with the corresponding masculine ending.

The formal motivation for this replacement is considered to have consisted in the following model.

| \bar{i} -stems | \bar{a} -stems |
|---|--|
| sg. N /dayv- \bar{i} / : [dēvī] | : sayn- \bar{a} / : [sēnā] |
| G /dayv- \bar{i} -yās/ : [dēvyās] | : X = /sayn- \bar{a} -yās/ : [sēnāyās] |
| etc. | |
| V /dayv- \bar{i} - \bar{i} / : [dēvī] | : Y = /sayn- \bar{a} - \bar{i} / : [sēnē]. |

Notice that in this model, it is the underlying forms (in the sense of generative phonology, here enclosed in slants), not the surface forms (enclosed by square brackets), which motivate the analogical replacements.¹² Notice also that in the derivation of the \bar{i} -stem surface forms from the corresponding underlying forms, Kurylowicz has to assume that there is a morphological dropping of the underlying stem-forming suffix *-i-* before the endings of the oblique singular (including the vocative).

2.10: It is, however, precisely this assumption of a morphological dropping of the stem-forming suffix $-i-$ which renders this hypothesis quite dubious. For, considering the obvious phonetic similarity and relatedness of the surface $-i$ of the vocative singular *devī* 'O goddess' and of the surface $-y-$ of the (other) singular oblique forms to the underlying stem-forming suffix $/-i-/$, one would expect for the native speaker to directly relate them to the stem-forming suffix by deriving them from it (by means of some kind of glide rule, and by some kind of morphological shortening for the vocative singular), rather than to derive them in the way proposed by Kurylowicz.

This is all the more likely since by deriving $-i$ and $-y-$ from the underlying stem-forming suffix $/-i-/$ the native speaker would avoid setting up the otherwise unprecedented case endings (such as sg. G/Ab. $-yās$ or V $-i$) postulated by Kurylowicz. He would rather be able to set up underlying forms like sg. G'Ab. $/dayv-i-as/$ and V $/dayv-i-Ø/$ which, except for the fact that the endings of the i -stem dative, genitive/ablative, and locative singular undergo $vṛddhi^{13}$ and a few other differences attributable to ablaut, are entirely parallel to the corresponding underlying formations found in (most of) the other inflectional classes of Sanskrit, such as n -stem sg. G/Ab. $/rāj-an-as/$: $[rājñas]$, V $/rāj-an-Ø/$: $[rājan]$ 'king'.

2.11: Also the analogical/morphological explanation given by Mayrhofer (1951) cannot be considered satisfactory.

According to Mayrhofer, the replacement of the original vocative singular ending $-ā$ was motivated as a differentiation of this from the otherwise identical corresponding nominative singular form. Formally, this replacement was in his view motivated by the following model.

| | <i>man/van</i> stems | | \bar{a} -stems |
|-------|----------------------|---|-------------------|
| sg. N | $-mā$ | : | $-ā$ |
| I | $-mānā$ | : | $-āyā$ |
| du. G | $-mānos$ | : | $-āyos$ |
| sg. V | $-mān$ | : | $X = *-āy > -e$. |

2.12: Although Mayrhofer's model appears quite straightforward at first blush, closer examination reveals that it suffers from the fact that, outside of the few, carefully chosen forms given by Mayrhofer, the inflections of the *man/van*-stems and \bar{a} -stems differ too considerably to provide for a plausible formal motivation for the vocative singular of the \bar{a} -stems to be remodeled on that of the *man/van*-stems; cf. the following complete singular paradigms (excepting the vocative singular under discussion).

| | <i>man/van</i> -stems | | <i>ā</i> -stems |
|-------|-----------------------|---|-----------------------------|
| sg. N | - <i>mā</i> | = | - <i>ā</i> |
| A | - <i>mānam</i> | ≠ | - <i>ām</i> |
| I | - <i>mānā</i> | = | - <i>āyā</i> |
| D | - <i>māne</i> | ≠ | - <i>āyai</i> |
| D/Ab. | - <i>mānās</i> | ≠ | - <i>āyās</i> |
| L | - <i>mān(i)</i> | ≠ | - <i>āyām</i> |
| (V | - <i>mān</i> | | *- <i>āy</i> > - <i>e</i>) |

In addition, there is no strong functional or semantic contact between the *man/van* stems and the *ā*-stems which would more strongly motivate a remaking of the model of the *ā*-stems on the model of the *man/van*-stems than on that of any other inflectional class.

3: A more acceptable historical explanation would seem possible if the following categorical rules are accepted for the synchronic derivation of the *ā*-stem singular oblique.

3.1: *ay*-RULE: $\bar{a} \rightarrow ay$ / [stem-forming suffix; sg. obl.; *ā*-stems]. This rule changes the underlying stem-forming suffix -*ā*- to -*āy*- in the singular oblique of *ā*-stems. It is motivated by the surface evidence of the instrumental singular with its predesinential short -*āy*-. Compare the derivations in section 3.4 below.

3.2: $\text{VR}\ddot{\text{R}}\text{DDHI}_1$: $V \rightarrow \bar{V}$ / [stem-forming suffix; sg. D,G/Ab., L; *ā*-stems]. This rule, which may possibly be a sub-instance of a more general *vṛddhi* rule applying in a number of other, different, morphologically defined environments, lengthens the stem-forming suffix vowel in the dative, genitive/ablative, and locative singular of the *ā*-stems, thus changing the -*āy*- derived by the preceding rule into long -*āy*-. Though not independently motivated, except as a 'clean up' rule to follow the *ay*-RULE and to produce the right surface forms in the specified cases, the rule is supported by the independently required rule $\text{VR}\ddot{\text{R}}\text{DDHI}_2$ given in section 3.3, which applies in the same case forms as $\text{VR}\ddot{\text{R}}\text{DDHI}_1$.

3.3: $\text{VR}\ddot{\text{R}}\text{DDHI}_2$: $V \rightarrow \bar{V}$ / [ending; sg. D, G/Ab., fem. *V*-stems]. This rule, which like $\text{VR}\ddot{\text{R}}\text{DDHI}_1$ may simply be a sub-instance of a more general *vṛddhi* rule, converts a short vowel into a long vowel in the case endings of the dative, genitive/ablative, and locative singular of *all* feminine vowel stems, optionally (in late and post-Vedic) in the short-vowel stems, the root nouns, and certain exceptional *i*- and *ū*-stems, obligatorily elsewhere (even in early Vedic).¹⁴

3.4: The following sample derivations may illustrate the application of the synchronic rules just discussed.

| | sg. I /sayn-ā-ā/ | sg. G /sayn-ā-as/ | /dayv-ī-as/ |
|---------------------|------------------|-------------------|-------------|
| ay-RULE | sayn-ay-ā | sayn-ay-as | |
| VRDDHI ₁ | | sayn-āy-as | |
| VRDDHI ₂ | | sayn-āy-ās | dayv-ī-ās |
| (Other rules) | śenāyā | senāyās | devyās |

4: This synchronic derivation permits of the straightforward morphological/analogical explanation of the Sanskrit vocative singular ending *-e* (from derivationally earlier */-ay/*) as owing its existence to the extension of the *ay*-RULE from the (rest of the) singular oblique¹⁵ to the vocative singular so as to distinguish this form either from the corresponding nominative (if the original Indo-Iranian vocative singular ending was **-ā*) or from the vocative singular of the corresponding masculines (if the original Indo-Iranian vocative singular of the *ā*-stems was **-ā*).

The fact that VRDDHI₁ was not likewise extended to the vocative singular can be explained as due to the fact that, outside of the short *i*- and *u*-stems, the Sanskrit vocative singular endings typically are not characterized by *vṛddhi*, but rather by short vocalism; cf. especially the short *-ī* (and *-ū*) of the most closely related feminine long-vowel stems, the *ī*- (and *ū*-) stems. In addition, as the evidence of the instrumental singular (with short *-āyā*, rather than *-āyā**) shows, VRDDHI₁ is not obligatory for *all* oblique forms.

5: We are thus confronted with the fact that the synchronic and historical derivations of sections 3 and 4 not only avoid the problems and difficulties encountered with earlier derivations (cf. sections 1 and 2), but also support and complement each other.

Moreover, the fact that it is only the synchronic derivation of section 3 which permits a plausible historical explanation of the shape of the *ā*-stem vocative singular ending shows that this derivation is eminently preferable to that of section 1.

Finally, this latter fact shows that it is not, as commonly believed, only the evidence of 'regular' phonetic change, but also that of morphological/analogical change which can be utilized in deciding between competing synchronic analyses.¹⁶ This is, of course, of special significance when dealing with extinct languages where it is impossible to address a native speaker of the language with the famous words 'O see; can you say...?'.¹⁷

FOOTNOTES

1. For the most plausible explanation of the historical origin of the alternative vocative singular ending *-ǎ*, cf. Kuiper 1947:210 with fn. 53. — Note that the discussion of this paper will, *mutatis mutandis*, hold true also for the Avestan *ā*-stem vocative singular ending *-e*.
2. This general conspiracy against vowel clusters is discussed in Hock, 1972.
3. I am grateful to Margie O'Bryan for having directed my attention to the Pāli facts.
4. In the *i*-stems, *y*-insertion was a regular process even in Sanskrit in the environment C*Ci*__V; cf. Hock, 1972.
5. No pre-forms are given where the pre-Sanskrit forms of this stage are identical with the corresponding (late) Proto-Indo-European forms.
6. For convincing arguments that Brugmann's Law was a regular phonetic development, changing ablauting **ǝ* to Indo-Iranian *ā* in (originally) open syllables, cf. Cowgill, 1957: 129-59.
7. For the accusative plural, cf. Hock (forthcoming).
8. As indicated in section 2.1 above, Ahrens also considered the type Gk. *Lētoi*- related. Ahrens's equation of the pre-Sanskrit **-ǎy* both with Gk. *-oi* and Gk. *-ai*, understandable as it is within the framework of early Indo-European studies and its unitary low-vowel phoneme **a*, can of course no longer be maintained.
9. Pedersen, obliquely following de Saussure's famous analysis of the Indo-European *seṭ*-roots, postulated that the original suffix **-ea-* of the *ā*-stems normally became **-ā-*, but that it became **-ay* in final environment, a development reflected in the Sanskrit vocative singular ending *-e* and in the ending of the Greek vocative singular *gúnai*. However, as Kuiper (1947:210 with fn. 53) pointed out, if there was any special word-final development of the feminine suffix under discussion, which of course is *-eA-* (not Pedersen's **-ea-*), this development was to ** ǎ* (not Pedersen's **-ay*).
10. Watkins's argument runs as follows: 'The morphological relation of the vocative in the Greek paradigm was with the nominative; where it was distinct, the vocative simply lacked the special mark of the nominative, *s* or length. Thus *tamiās*: *tamia*,

daīmōn: *daīmon*.....' (114). 'Note that the morphological relation of the vocative with the nominative in Greek speaks against the derivation of *gúnai* from the oblique stem *gunaik-* = nom. *gunē*' "woman"'. It rather favours Pedersen's view of 1902 'that the ending of *gúnai* may be related to the Skt. voc. type *séne*...' (fn. 37). — Although Watkins is no doubt correct in observing that the synchronically productive pattern of Greek is that the vocative singular equals the nominative singular minus its special marker (s), his conclusion that therefore the divergence of sg. V *gúnai* from N *gunē*' must be of Proto-Indo-European origin seems unwarranted. The only thing which it is safe to assume is that this divergence probably reflects a chronologically productive pattern. However, it is by no means a priori certain whether this earlier stage was Proto-Indo-European, pre-Greek, or even (early) Proto-Greek. This question would have to be decided on the basis of more substantial evidence than the mentioned synchronic pattern of Greek.

11. Pokorny's own alternative attempt at explaining the Sanskrit facts, which he himself considered extremely tentative and uncertain, namely the view that there was a transfer of *-ay from the pronominal nominative singular feminine of the type Avest. *x^vaē* 'die eigene' (291-2), cannot be considered satisfactory either. For, if the *ay had indeed originated in the nominative singular feminine of certain pronouns, it is surprising that this *-ay was transferred, not to the *nominative*, but to the *vocative* (and *oblique*) singular of the nouns.
12. Although Kurylowicz did not himself use the generative phonological terminology here employed, it is quite evident that in effect his model operates with underlying, rather than surface, forms.
13. For details and remaining problems, cf. section 3. 3-4 and fn. 14 below.
14. Note that for the derivation of the surface forms of the *vṛddhied* locative singular, some additional rule(s) must be postulated. The expected underlying forms, such as *ā*-stem /sayn-*ā-i*/, *i*-stem /dayv-*i-i*/, *ī*-stem /ga-ti-*i*/ should, with *VRDDHI*₂ (and *VRDDHI*₁ where applicable), yield surface forms like *senāyai**, *devyai**, *gatyai**. Instead we find *senāyam*, *devyām*, *gatyām*. While the precise nature of these rules is of no consequence for the present discussion, it may be pointed out that the application (or non-application) of these rules is intimately tied

up with the application (or nonapplication) of VRDDHI₂, as can be seen for instance in the inflection of short-vowel feminines:

| | with VRDDHI ₂ | without VRDDHI ₂ |
|-------|--------------------------|-----------------------------|
| sg. D | <i>gatyai</i> | <i>gataye</i> |
| G/Ab. | <i>gatyās</i> | <i>gates</i> |
| L | <i>gatyām</i> | <i>gata (u)</i> |

15. The -y- of the singular oblique forms in turn appears best explained essentially along the lines of Thumb-Hauschild, 1959:45-7 (with earlier literature). For it would be methodologically dubious to project the morphological difficulties with the exclusively Indo-Iranian forms in *āy- plus ending back into Proto-Indo-European.
16. This latter insight is not entirely new. As I realized after coming to the conclusions reached in this paper, it had already been arrived at in Andersen, 1969 (especially pp. 813, 819, and 827). However, perhaps, because it was arrived at in a paper of interest mainly to historical linguists, it seems to have gone largely unnoticed among synchronic linguists, justifying (I hope) its restatement and redocumentation in the present context.

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PRONOUNS AND REFLEXIVES IN MALAYALAM

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The following is a discussion of the constitution and syntactic behaviour of a class of forms often called 'pronouns' in the Laccadive dialect of Malayalam. Generally it is said that such forms 'stand for' or 'replace' or 'are substitutes for' what was previously referred to or understood as noun forms. The traditional and structural grammars of Malayalam recognize four types of 'pronouns': personal, demonstrative, reflexive and interrogative.¹

The traditionalists with their characteristic quest for the evolution of the language and the structuralists with their over-concentration on classification and distribution at the expense of function have given only very little attention to the study of the deeper regularities in the syntactic function of 'pronouns'. However the present analysis attempts to explain the deep structure constitution of these forms and their manifestation in sentences in Laccadive Malayalam. The deep structure which provides semantic interpretation is envisaged here as highly abstract and the derivation of 'pronouns' from such underlying structures is by 'segment' introduction rules.

In a number of grammatical descriptions of Malayalam (cf. fn. (1)) the first and second person pronouns are differentiated from the third person pronouns on the basis of their morphological composition in the following way :

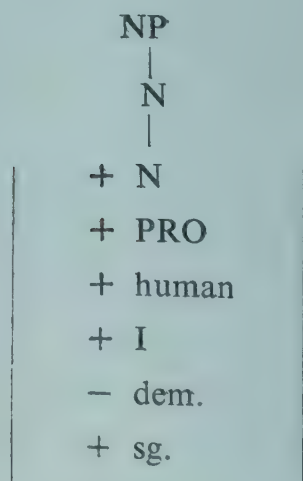
1. Pronoun stem + person number marker——[+I] and
[+II] Person and reflexive
2. Demonstrative base + gender number marker (± sg./ ± mas./
± animate) III Person.

As a result of this differentiation the third person pronouns came to be called demonstrative pronouns, asserting the fact that they involve a feature [+ dem.] effected by a demonstrative particle. Consequently such analyses were forced to preserve the demonstrative bases as pronoun stems in their noun morphology and at the same time as clitics in their clitic morphology (cf. fn. (1)). This, although alludes to the dual function of demonstrative bases, does not contribute anything further to the exploration of the real nature of pronouns. The first and second person pronouns created little problem in their analysis because they always believed that both of them involve pronoun stems (which are / naa- / (I Pers.) 'I' and / nii / (II Pers.) 'you, Sg.' in standard Malayalam and / naa- / (I Pers.) and nii- (II Pers.) in Laccadive Malayalam. (See also the chart above).

An assessment of the above - stated position would simply indicate that the prime factor which differentiates both first and second from the third person pronouns is that the former set is constituted by pronoun stems which are [-dem.], while the latter is constituted by a demonstrative base to function as a pronoun base and hence is [+ dem.]. In a transformational grammar these factors would enable one to present the following analysis for the 'personal pronouns' in Laccadive Malayalam.

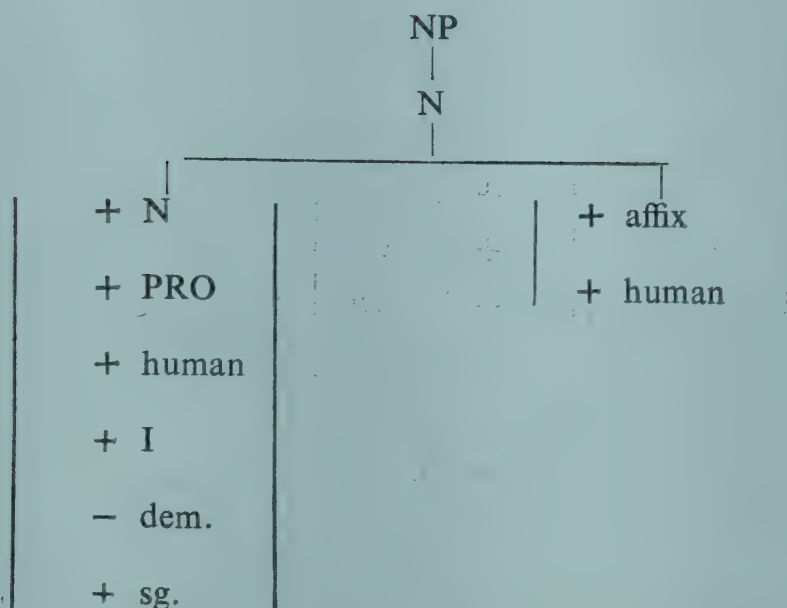
First and second person pronouns: the 'first person pronoun' / naaam / may be represented in the deep structure as shown below.

3.



A noun suffix transformation applied to (3) would generate (4).

4.



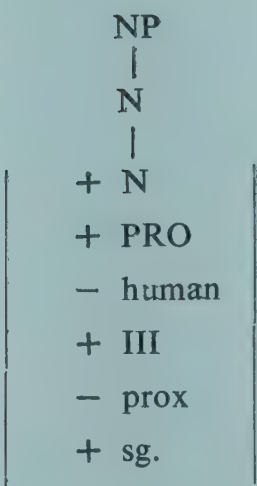
naa - m

/-m/ in /naam/ 'I' and /niim/ 'you (Sg.)' in Laccadive Malayalam is treated as a Person number marker.² From (3) and (4) it is evident that /naam/ 'I' is actually a noun in the deep structure marked as [+ PRO]. The generation of the second person pronoun /niim/ 'you (Sg.)' is the same as the above with the required difference indicated in their feature specifications as [+II + sg.]. The plural forms for both first and second person are also to be generated in the same manner by specifying them for [-sg.] and mapping it on to the affix segment which will be eventually replaced by the relevant plural suffixes).³

Third person 'pronouns' : The third person 'pronouns' are specified for [+mas.] or [- mas.] or $\begin{bmatrix} -mas \\ -fem \end{bmatrix}$ (i. e. the so-called neuter pronouns which are / -human /). As it is shown earlier all third person pronouns involve demonstration. Hence they are either [+ prox.] or [+ rem.] which may be specified as [-prox.].

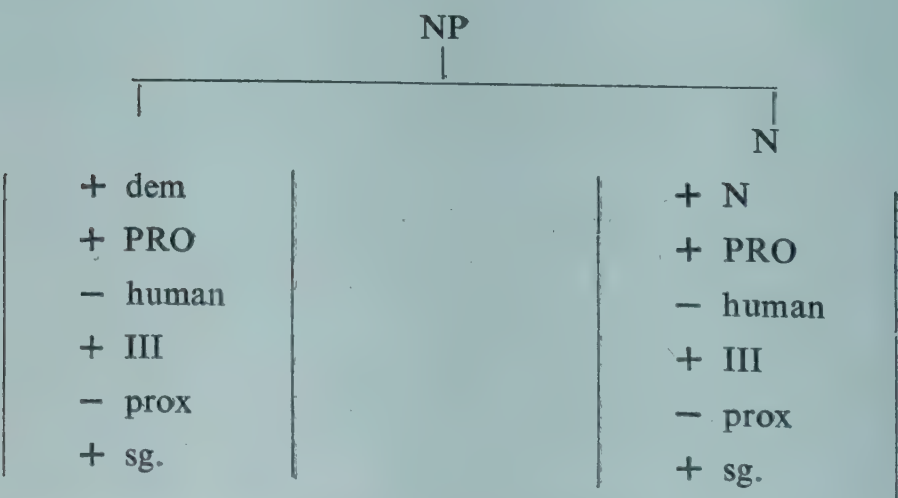
The transformational derivation of the III Person 'pronouns' are different from that of I Person and II Person. For instance, consider the deep structure representation of the III Person neuter 'pronoun' /atu/ 'it' in Laccadive Malayalam and its derivation by the various transformational rules. Exemplification follows :

5.



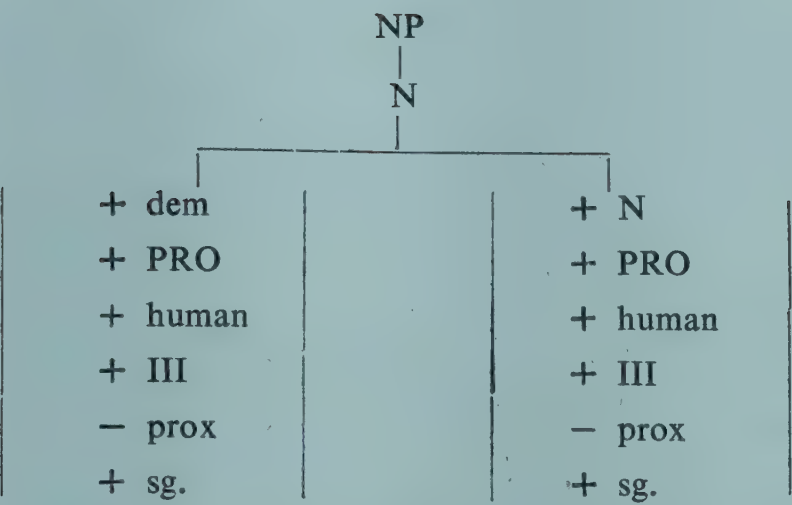
The deep structure (5) denotes that the ‘pronoun’ is / +dem / since it is specified for / - prox / and hence a demonstrative transformation along with a noun suffix transformation is required to generate the surface structure. Demonstrative transformation as applied to (5) would introduce a demonstrative segment in the left of the N-segment with all the features of the N-segment copied on to it. See (6) below:

6.



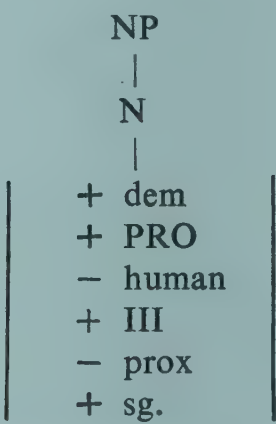
At this stage of derivation a noun segment transformation is applied to the intermediate structure (6) which (a) adjoins the demonstrative segment to the noun segment under the domination of the noun as in (7):

7.



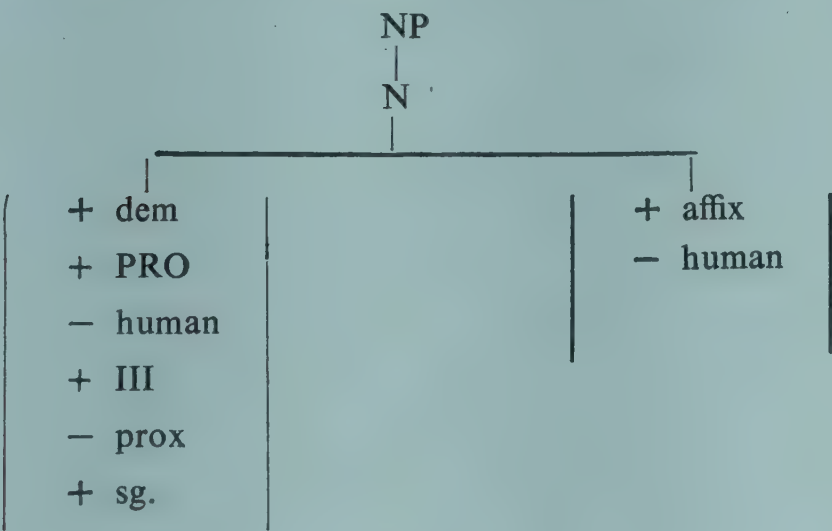
and (b) deletes the noun segment leaving a noun dominating a demonstrative as it is illustrated below:

8.



To generate the surface structure form /atu/ a noun suffix transformation is to be applied to (8) to yield (9).

9.



a — tu

In (b) above, the mapping of the feature [+ PRO] and the other relevant features of the underlying noun onto the demonstrative segment is justified by the deletion of the N-segment in (7). Notice the fact that the demonstrative is the 'pronoun' in (9). It would show that III Person 'pronouns' originate as nouns in the deep structure and they become demonstratives in the surface structure. This basic assertion regarding the III Person 'pronouns' is irrelevant for I and II person 'pronouns' as long as one considers them as non-demonstratives.

But the present analysis attempts to examine the I and II Person 'pronouns' further, mainly on the basis of the assumption that they too are demonstratives like III Person 'pronouns'. The claim that the I and II Person 'pronouns' are demonstratives in the surface structure can be justified only after a thorough discussion on the underlying features of 'pronouns'. Furthermore, if this claim could be maintained, it would obviate having to take /naam/ and /niim/ as pronoun stems which are marked [-dem.] as it is shown in the first analysis presented above. This feature [+dem.] involves some of the most important problems and provides some of the most significant evidence for the following analysis. The underlying features [+ I], [+ II], [+ III] are to be specified as occurring only in nouns which are marked for [+ PRO].

As it is shown in (5) the III Person 'pronoun' is represented as a noun in the deep structure with a feature specification [-prox]. This syntactic feature necessitates the application of the demonstrative transformation as in (6). To differentiate between the proximate and remote III Person 'pronouns' is rather easy because they all involve demonstrative stems: /i-/ as in /itu/ 'it' and /bee-/ as in /beem/ '(this) he' (both [+prox]) /a-/ as in /atu/ 'it' and /oo-/ as in /oom/ '(that) he' (both [-prox]). To suggest that the I and II Person 'pronouns' are demonstratives it has to be ascertained whether they are proximate or remote. Certain facts in Laccadive Malayalam strongly suggest that the I and II Person 'pronouns' are proximate demonstratives and are marked as [+prox] in their deep structure. The first and second persons indicate the speaker and the addressee respectively. The III Person pronoun denotes an object/person about which/whom the first person is speaking to the second person. It is to be assumed here that the specification of the proximity or remoteness of the speaker, addressee and the third person/object is a matter of degree in a conceptual space. Such a view would essentially appreciate the spatial nearness of the speaker, the addressee and the third person proximate.⁴

Hence in Laccadive Malayalam /naam/ 'I', /niim/ 'you', Sg., /itu/ 'it', /beem/ '(this) he', /beel/ 'I (this) she' and /iba/ 'these, they' are all proximates which differ only in degree. Since the speaker is the locus of description, I Person is supposed to involve the highest degree of proximation. This crucial assumption would make it possible to envisage that there are at least three degrees of proximation. Exemplification follows:

- | | | |
|-----|-----------------|----------------------------|
| 10. | / <u>n</u> aam/ | 'I' [+ 1 prox.] |
| 11. | / <u>n</u> iim/ | 'you (sg.) [+ 2 prox.] |
| 12. | /itu/ | 'it' |
| | /beem/ | '(this) he' |
| | /beel/ | '(this) she' [+ 3 prox.] |
| | /iba/ | '(this) they' |
| | /iba!a/ | '(this) they' |

Here the [+ 3 Prox] is distinguished from [+ 2 prox] for derivational convenience, since generally there may exist no significant degree of difference between the two. This analysis would definitely capture the spatial relation (See fn. (4)) between the formatives in (10) — (12).

The argument that the I and II Person 'pronouns' contain the feature /+ prox./ can be further supported by the following observation. Consider the following expressions in Laccadive Malayalam.

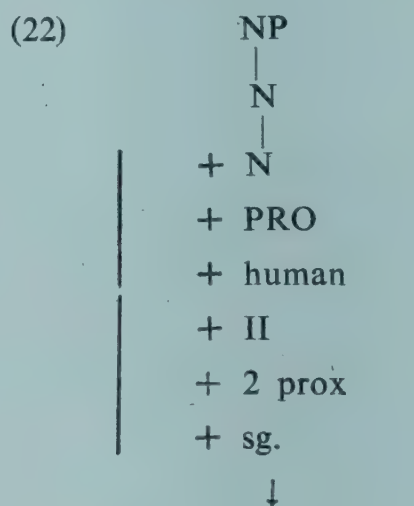
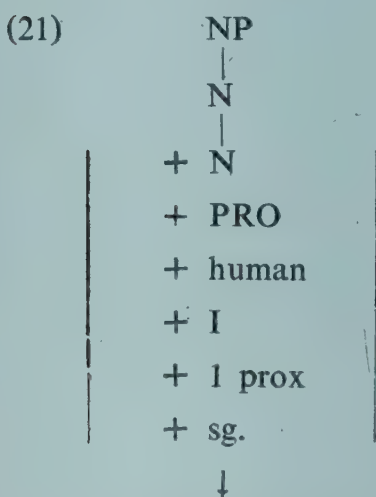
- | | | | |
|-----|----|--------------|------------------------|
| 13. | ii | <u>n</u> aam | 'this (this) I' |
| 14. | aa | <u>n</u> aam | 'that (this) I' |
| 15. | ii | <u>n</u> ii | 'this (this) you, Sg.' |
| 16. | aa | <u>n</u> ii | 'that (this) you, Sg.' |
| 17. | ii | beem | 'this (this) he' |
| 18. | aa | beem | 'that (this) he' |
| 19. | ii | itu | 'this (this) it' |
| 20. | aa | itu | 'that (this) it' |

In (13), (15), (17) and (19) it is observed that the proximate demonstrative adds more emphasis to the 'pronoun'. This, it is contended here, is because of the very fact that the 'pronouns' contain a demonstrative feature indicating [+ prox.]⁵.

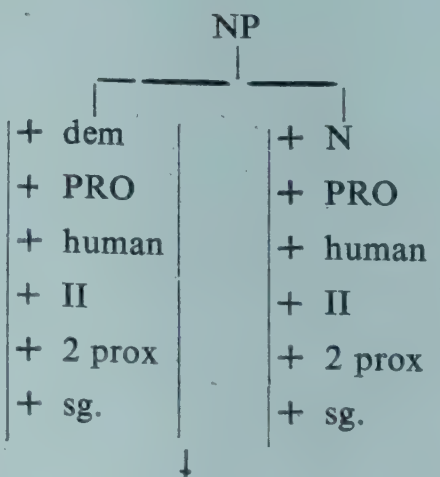
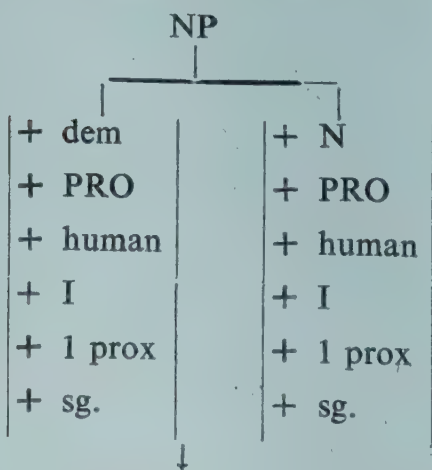
Effecting emphasis by the repeated use of identical formatives in sentences is a general phenomenon in Laccadive Malayalam as well as in the other cognate languages. (14), (16), (18) and even (20) may be contrasted with (13), (15), (17) and (19) respectively by

indicating the essential difference in the conception of the characterization of what is demonstrated. In each contrasting pair of (13) - (20) although the point of reference is the same person/object, he/it is conceived to be in a different context or point of time.⁶

All these would present an outright advantage of arriving at an inner regularity in the syntactic behaviour of the forms called 'pronouns'. Hence the analysis presented for I and II Person pronouns as in (3) - (4) has to be rejected in favour of a more penetrating treatment, which aims at a general rule to account for all the 'pronouns'. In the following discussion it is shown that the analysis presented above for the III Person 'pronouns' holds good for the I and II Person pronouns too. (21) and (22) below indicate the derivation of / naam / and / niim / in Laccadive Malayalam.

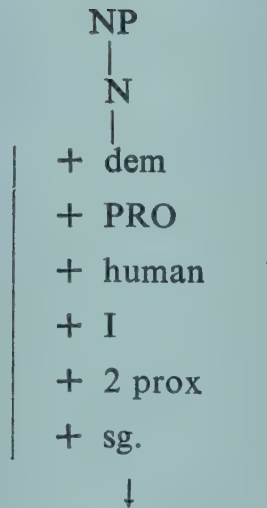
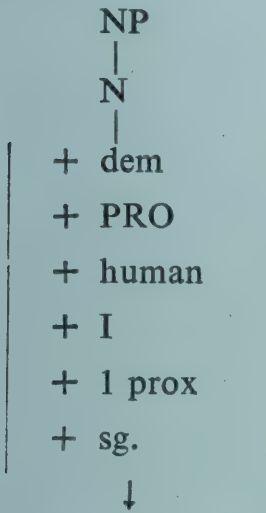


By demonstrative transformation

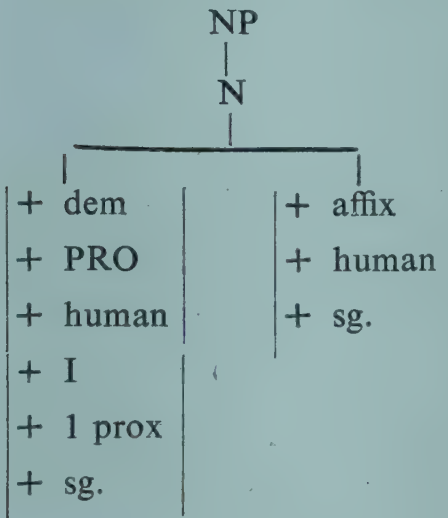


By Noun segment transformation

- (1) dem. segment adjunction
- (2) N-segment deletion



↓
By noun suffix transformation.



naa-m

nii-m

The plural forms can be generated by introducing segments with [-sg] by the noun suffix transformation.

The claim that personal pronouns are demonstratives in the surface structure can be further justified on the following ground. Consider the sentences below:

23. niñña (I) makka naaḷa kaRappattu barooṇum
you (Pl.) children tomorrow beach come-should
(You children should come to the beach tomorrow).
24. namma (I) diibukaarammaa harakkaarammaaraaṇṭoom
we (Incl.) islanders witty are-we
(We islanders are witty (people)).

In the sentences above, the deep structure nouns in the subjects are /makka/ and /diibukaarammaa/. /niñña (I) makka/ and /namma (I) diibukaarammaa/ are derived from (25) and (26).

25. *niñña* (I) *makka aayaba*
you children are-which they
(You, who are children).
26. *namma* (I) *diibukaaramma aayaba*
we (incl) islanders are-which they
(We, who are islanders).

/aayaba/ is deleted during the derivation. In both (23) and (24) above the 'personal pronouns' seem to behave just like demonstratives. This may also be viewed as supporting evidence for the analysis already presented for personal 'pronouns'.

Reflexive Pronouns :

The so-called reflexive pronouns in Laccadive Malayalam are *ta-* (as in / *tamm-* /, / *taññ-* / and / *tann-* /) and / *taa-* / (as in / *taam* / and / *taan-* /). They are generally treated as synonyms with respect to their occurrence in sentences.⁷

'The reflexive pronoun 'self' is entitled to a place amongst personal pronouns, because it possesses all their characteristics, and is declined in precisely the same manner' (Caldwell (1856) 1961, p. 395). The traditional and descriptive grammars of Malayalam have also taken note of the fact that / *taan* / in Malayalam functions as II Person pronoun.⁸

Interestingly, a number of points raised in the section on reflexive pronoun 'self' in Caldwell (1856) 1961 p. (395) seem to be relevant here since the present discussion claims to shed more light on similar problems on the basis of the analysis already presented for the personal pronouns. See the following excerpts from Caldwell (1856) 1961 : (Consideration is given only to information relevant to Malayalam).

- a. Reflexive pronoun 'self' is entitled to a place amongst personal pronouns (p. 395).
- b. It may almost indeed be regarded as a pronoun of the III Person (p. 395).
- c. When not itself used as the nominative of a sentence, it always agrees with the principal nominative (p. 396).
- d. It is also used as an emphatic addition (p. 396).
- e. The reduplicated forms of the inflection is used to mean 'their's respectively' (p. 397).
- f. The use of / *taan* / as an honorific pronoun of the II Person (p. 399).

g. If we look at its meaning and range of application, it must, I think, have originated from some emphatic demonstrative base (p. 401).

The generalization that 'reflexivization' is a function of NP-identity (Postal 1966, pp. 190-191) is maintained in the present discussion. Any native speaker of Laccadive Malayalam knows the following reflexive sentences are based upon identity of reference between subject and object.

27. oom tannattaam piraaki
(that) he- he- he (self) cursed
(He cursed himself).

28. naam tannattaam iṭiccu
I I-I (self) hit
(I hit myself).

In order to be able to describe the intuition that the subject and object are identical here, there must be a way indicating that the two NPs have the same reference. In sentences like

29. koojam koojana piraaki
Kojan Kojan-Acc cursed
(*Kojan cursed Kojan)

it is understood that two different persons named 'Kojan' are involved. If the two occurrences of / koojam / are meant to refer to the same person, then (29) will be said as (30).

30. koojam tannattaam piraaki
Kojan he-he (self) cursed
(Kojan cursed himself).

Consider the following sentences in Laccadive Malayalam:

31. naam enna piraaki
I me cursed
(*I cursed me).

32. niim niinna piraaki
you, Sg. you (Acc.) cursed
(*You cursed you)..

33. oom oonaa piraaki
(that) he him cursed
(*He cursed him).

In all these instances the subject and object NPs have identical reference. This makes reflexivization possible and hence (31) - (33) are reflexivized as (34) - (36) respectively.

34. naam tannattaam piraki
I I-I- (self) cursed
(I cursed myself).
35. niim tannattaam piraaki
you, Sg. you, Sg. you Sg. self cursed
(You cursed yourself).
36. oom tannattaam piraaki
(that) he he-he (self) cursed
(He cursed himself).

In (34) — (36) it is beyond doubt that /tannattaam/ indicates the respective subjects NPs. This would simply mean that the formative /taam/ is in fact a 'personal pronoun' (cf. excerpt (a) Caldwell (1856) 1961). But it has already been ascertained that all personal pronouns originate as nouns in the deep structure and become demonstratives in the surface structure. Thus the so-called reflexive pronoun also is taken as a demonstrative in the surface structure derived from an underlying noun segment. Interestingly, excerpt (g) from Caldwell (1856) 1961 speculates that the reflexive pronoun might have originated from some emphatic demonstrative base. But looking at its meaning and range of application it is a demonstrative in the surface structure only, and since it is considered as a 'pronoun' its origin is undoubtedly as a noun marked for /+PRO/ in the deep structure.⁹

How this demonstrative will indicate emphasis will be explained later in the following discussion.

It has been shown that all the other personal pronouns except reflexive are specified for [+ I] or [+ II] or [+ III]. For reflexives such a specification is in strict relation to their referential identity with the subject of the sentence. This explains the occurrence of /tannattaam/ in sentences (34) — (36) above. It, however, refers to /naam/ [+ I] in (34), niim [+ II] in (35) and /oom/ [+ III] in (36). The suggestion that reflexive pronoun 'self' may be regarded as a pronoun of the III Person (excerpt (b)) seems to be natural. But it may also be viewed in a different way. Relevant observation follows:

In Laccadive Malayalam /taam/ is used as III Person pronoun as illustrated in (37) — (38) below:

37. oom oonaa kaaryam nuukkaṇṭa
(that) he his matters looks
(He looks after his own matters).

38. oom tanna kaaryam nuukkaṇṭa
the he his matters looks
(He looks after his own matters).

Consider the following sentences also:

39. naam enna kaaryam nuukkaṇṭa
I my matters looks
(I look after my own matters).
40. naam tanna kaaryam nuukkaṇṭa
I my matter looks
(I look after my own matters).

(40) is not an acceptable sentence in Laccadive Malayalam. Such instances might have been the source for the observation in excerpt (b) from Caldwell (1856) 1961. In the following sentences also /taam/ is most natural as third person.

41. hamsa tanikku uru kuppaayam beenṭi
Hamsa him-to one shirt bought
(Hamsa bought a shirt for him).
42. niim tanikku uru kuppaayam beenṭi
you, Sg. you, Sg.-to one shirt bought
(You bought a shirt for you).
43. naam tanikku uru kuppaayam beenṭi
I me to one shirt bought
(I bought a shirt for me).

Only (41) is fully acceptable since /taam/ is substituted for third person. (44) and (45) are the acceptable forms of (42) and (43).

44. niim niinakku uru kuppaayam beenṭi
you, Sg. you-to one shirt bought
(You bought a shirt for you).
45. naam naaakku uru kuppaayam beenṭi
I me-to one shirt bought
(I bought a shirt for me).

These would create difficulties in excerpt (c) from Caldwell where it is stated that the non-nominative use of reflexive pronoun is always in agreement with the principal nominative, while in Laccadive Malayalam (as in standard Malayalam) (40), (42) and (43) are not acceptable sentences. Notice that in (42) /tanikku/ 'to you' gives only one meaning. It cannot denote third person unlike in (41) and (43). Even then (42) is not generally acceptable to native speakers who would like to use (44) instead, though they may not be totally rejected as nonsensical.¹⁰

See the following acceptable sentences in standard Malayalam.

1. enikku tankaaryam nookkaan poolum neeram kittunnilla
me-to my matters look-for even-and time gets — not
(I don't get enough time to look after even my own matters).
2. ninakku aanenikil tankaaryam nookkaanee neeramulluu.
you, Sg. is-if your matters look-for time is-only
(As for you, you get time to look after your own matters only).

In sentences (34) and (35) the formative /taam/ is used as reflexive. At least in such instances it cannot receive a [+III] specification. This fact points towards an essential generality of the function of the so-called pronoun /taam/ in various instances. If in reflexive sentences they can co-refer to all Persons, in other instances also they may be capable of functioning in the same way. This would almost enable one to consider sentences like (40), (42) and (43) as grammatically correct but unrealistic.¹¹

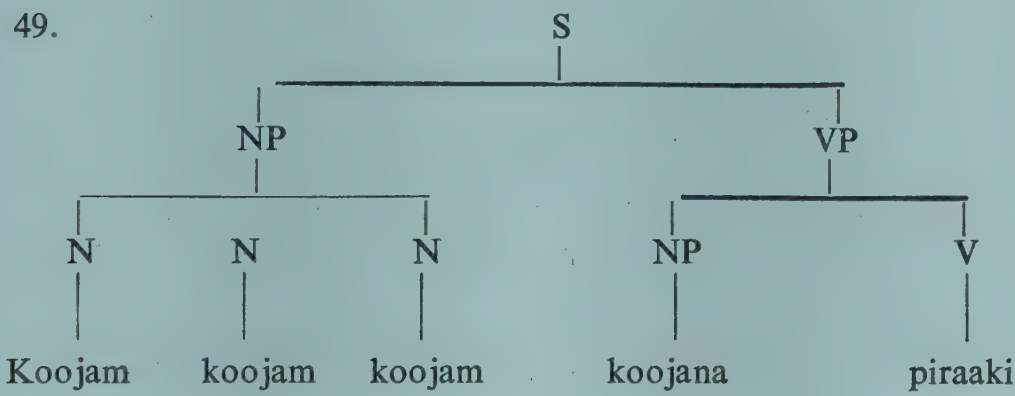
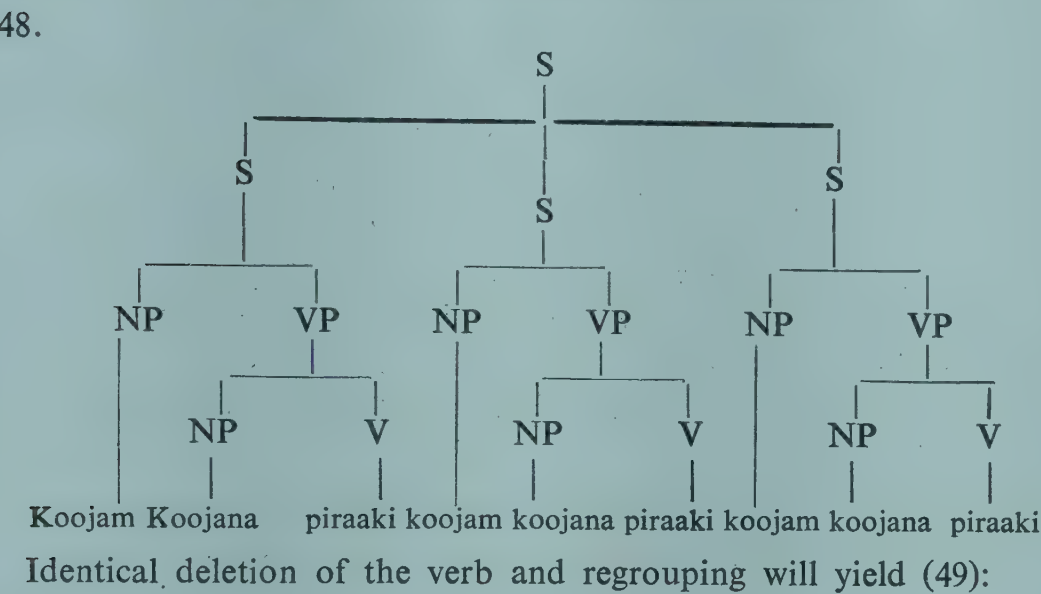
Furthermore, the unacceptability of these sentences may be explained on the basis of a possible ambiguity effected by the formative /taam/ in sentences. If /taam/ is used as II Person pronoun (as in standard Malayalam) then (41) above would become ambiguous because /tanikku/ can also mean 'to you'. Hence in Malayalam, generally, /taan/ forms are ambiguous in such instances as (41) and (43). The drive towards disambiguation may be a possible reason for the unacceptability of sentence (43) or even (42). With third person subjects though there can be an interpretation for ambiguity, it may be resolved by speech contexts. Since /taam/ in (41) also ensures its agreement with the subject nominative, positing it as grammatical in (42) and (43) would seem to be only plausible. Such a view, in effect, would invalidate excerpt (b) from Caldwell (1856) (1961) and would appreciate excerpt (c) as a generality. This commitment, if it is one, rather simplifies the grammar and hence it may be considered as essential in the description of Laccadive Malayalam. In excerpt (f) Caldwell indicates that /taam/ is often used as an honorific pronoun of the II Person: However such instances are not identified in Laccadive Malayalam.¹²

It has been shown that sentence (30) is an instance of reflexivization. Reflexivization requires identical NPs in a simple sentence. In such sentences as (30) there is a case of ambiguity since the NP object can be identical with the subject NP or not, i. e. (30) can be interpreted as (46) and (47).

46. koojam tannattaam koojana piraaki
Kojan he-he [+emp+unique] Kojan-Acc. cursed
(Kojan cursed himself).

47. koojam tannattaam maimuunattna piraaki
Kojan he-he [+emp+unique] Maimunath-Acc cursed
(Kojan himself cursed Maimunath).

It would show that (30), if it is interpreted as either (46) or (47) with an object in its underlying structure, the object NP eventually gets deleted in the surface structure. This sheds light on the contentious formative /tanna/ (in /tannattaam/) which is generally doubted as the object of the reflexive sentence. Sentence (46) can be said to be represented as (48) in the deep structure.



(48) above is a typical and interesting instance of both NP and VP identity in a co-ordinate construction. In (48) identical deletion, if applied to all identical constituents, will yield a simple sentence of the form (29). But it is presumed here that the identical deletion applies only to the verbs in (48) to generate (49) which actually completes the process of reflexivization. If identical deletion is not applied to (49), naturally the NP-Ns are to be conjoined as in the case of co-ordinate structures. Conjunction of the NP-Ns in (49) will result in (50).

50. *koojanum₁ koojanum₁ koojanum₁ koojana piraaki
 Kojan-and Kojan-and Kojan-and Kojan-Acc. cursed
 (to mean Kojan₁, Kojan₁ and Kojan₁ cursed Kojan₁).

(50) is not a natural sentence in Laccadive Malayalam since all the NPs in the sentence have identical reference and hence conjunction does not work in (49). Reduplication of identical constituents in Laccadive Malayalam, as one of its functions, provides emphasis or intensity to what is referred to in the sentence.¹³

This syntactic process of emphasizing or intensifying can be observed for the subject NP in reflexive sentences. The non-deletion of the identical NPs in (49) is justified by pronominalization. The reduplicated NPs come to be marked for [+ refl] due to NP (subject and object) identity in the sentence and reflexivization as applied to (49) will pronominalize the second and third NP-subjects with / taam / [+ PRO + refl] to get

51. koojam taam taam koojana piraaki
 Kojan he-he [+ emp + unique] Kojan Acc. cursed
 (Kojan cursed himself).

By deletion of the identical NP-object and / taam taam / → / tannattaam / sentence (30) is generated :

- koojam tannattaam piraaki
 Kojan he-he (self) cursed
 (Kojan cursed himself).

/ taam taam / → / tannattaam / due to a vowel contraction in the first element / taam / which makes the final / -n / geminate. (word finally, / -n / of standard Malayalam is / -m / in Laccadive Malayalam). These may be accounted for by a rule in the phonology of Laccadive Malayalam.¹⁴

This and the presence of the emphatic particle / -a / explains the transformation of the lexical formative / taam / to / tann- /. In / tannattaam /, / taam / also is emphatic though an emphatic marker -e(e) is not frequently added to it in Laccadive Malayalam. On the basis of evidences available from forms like / tannattaane / in both Malayalam and Tamil / taam / in / tannattaam / is ascertained to be [+ emph] [+ unique].¹⁵

Excerpts (d) and (e) from Caldwell (1856) 1961, although they allude to the use of / taam / for emphasis and to effect the sense 'respectively' by the very process of reduplication when more than one NP-subjects (non identical) are indicated, do not envisage its importance in the general process of reflexivization. In fact excerpt (d) does not indicate anything about the emphasis or intensity

effected by the reduplication of the identical NPs, while (e) considers only the 'respectively' construction in which reduplication process takes place to fulfil the general condition of reflexivization rather than anything else. (See also discussion on / tammi (l) (t) tammi (l) /.)

(46) is a transitive sentence which involves NP-identity and hence it would illustrate the intuition that reflexivization is a process which indicates that the action turns back upon the subject. In (47) this is not the case; the object NP is not identical with the subject NP. But interestingly enough, the so-called reflexive pronoun form / tannattaam / is used in (47) which involves a transitive verb. The same is true with sentences (52) and (53) below which involve intransitive verbs.

52. naam tannattaam pookaṇṭa

I I-I / + emp + unique / go
(I am going alone).

53. oom tannattaam Raṇṇaṇṭa

(that) he he-he [+ emp + unique] sleeps
(He sleeps alone).

These facts would immediately give rise to doubts about treating / tannattaam / as a reflexive form. Is it correct to call it a reflexive form simply on the basis of the fact that it occurs in reflexive sentences? Or, is it correct to conclude that they are not reflexives since they appear in such sentences as (47), (52) and (53) also? These and a number of other relevant questions would demand immediate answers. It is evident from structures (48) and (49) that / tannattaam / results from the reduplication process of the subject NP. NP identity in reflexivization is understood as an identity of the subject and object NPs in the sentence as it is the case in (46). If so (47) does not present an instance of NP-identity since the object NP is not identical with the subject NP in the sentence. This would beg for an assumption that there is no question of reflexivization in (47). Furthermore, it may also indicate that the use of / tannattaam / in such sentences as (47), (52) and (53) is just to fulfil a general process of emphasizing or intensification of the subject NP.

In (46) also this exactly is the case but, of course, with a significant difference. It has been shown that the object NP-deletion in (46) generates sentence (30) which is frequently understood as a reflexive sentence though it can also be interpreted as (47). During the transformational process / tannattaam / is assumed to receive a feature [+refl.] mapped on to it to effect reflexivization since the

identical object NP which is marked for [+refl.] gets deleted. This syntactic process enables /tannattaam/ to function as reflexive. In (47) such a process does not take place and hence /tannattaam/ remains as non-reflexive as in (52) or (53). In short, this would ventilate the following conditions regarding the process of reflexivization in Laccadive Malayalam:

- a. Reflexivization is a function of identity of subject and object NPs in a transitive sentence.
- b. /tannattaam/ (or any of its alternations for that matter) can be interpreted as reflexive only when the identical object NP is deleted in sentences which satisfy condition (a) above.
- c. In transitive sentences which do not involve identity of subject and object NPs (as in (47)) and also in intransitive sentences (like (51) and (52)) /tannattaam/ does not satisfy condition (b).
- d. As a consequence of condition (b) /tannattaam/ comes to function as a pseudo-reflexive in sentences which satisfy condition (c) and this very fact seems to be responsible for the incorrect consideration that /taam/ and /tannattaam/ are reflexive pronominal forms everywhere it occurs in sentences.

The deep structure constitution of (47) is similar to that of (46) except in that the object NP is marked as non-identical with the subject NP. The derivation of (47) can be said to be as follows:

54. → koojam koojam koojam maimuunattna piraaki
(Identical deletion and regrouping)
Kojan Kojan Kojan [+em+unique] Mainmunath cursed
- koojam taam taam maimuunattna piraaki (pronominalization)
Kojan he-he [+emp+unique] Maimunath Acc. cursed
- koojam tannattaam maimuunattna piraaki (taam→taanna/taam)
Kojan he-he [+emp+unique] Maimunath Acc. cursed
(Kojan himself cursed Maimunath).

Similarly the following intermediate structure is indicative of the deep structure constitution of the intransitive sentence (52).

55. → naam naam naam pookaṇṭa (identical deletion and regrouping)
I I-I — [+emp+unique] go
- naam taam taam pookaṇṭa (pronominalization)
I -I- I [+emp+unique] go

- naam tannattaam pookaṇṭa (taam → tanna / taam)
 I - I - I (self) - go
 (I am going by (myself)).

(52) points out a possible ambiguity of the formative / tannattaam / . It can denote that the subject NP is [+ actor ± instigator ± unique] These are illustrated in the following sentences.

Subject [+ actor - instigator + unique] :

56. naam oom paRaṇṇatu keeṭṭu taana malayaaḷattakku pookaṇṭa
 I he said which having heard I [+ unique] (alone) Malayalam-to
 (to Kerala) go
 (Having heard what he said I went Kerala) .

Subject [+ actor + instigator + unique] :

57. naam enna biṭṭara kaṇṇooṇuṇṇenu byaariccu taana pirakku
 puRappēṭṭu peem
 I my - wife-Acc. see-need will that-having thought house-to
 started went
 (Thinking that I should see my wife I went home alone).

Subject [+ actor + instigator - unique] :

58. naam enna biṭṭara kaṇṇooṇuṇṇenu byaaricen nanna aḷiyana-
 kuṭe pirakku puRappēṭṭu peem
 I my wife-Acc. see need-will-that having thought my brother-in-
 law with house-to started and went
 (Thinking that I should see my wife I went home with my
 brother-in law).

/taana/ 'alone' is specified for [+ unique] in Laccadive Malayalam, but it is seldom used along with /tanna/ as /tannattaana/.¹⁶ /taam/ in /tannattaam/ in Laccadive Malayalam is already shown to be marked for [+ emp + unique] while /tanna/ is only [+ emp]. But interestingly /tannattaam/ often denotes only a sense [+ unique] which can be equally effected by /taana/ 'alone'. Generally /taam/ seems to function only as [+ unique] when it occurs with /tanna/ as in /tannattaam/. In all other contexts it may give only a [+emph] specification (see sentence (58) in comparison with (60) below). All these are viewed as nuances of an underlying sense of emphasis and hence as a generalization /tanna/ and /taam/ can be said to be used to effect emphasis or intensity to specific units in sentences. The following discussion is mainly based on the notions already presented above. However the present author attempts to suggest certain alternative analyses which may possibly be argued as plausible for reflexivization.

[An alternative analysis which considers the form /tannattaam/ as indicative of an underlying reflexivization process wherever it occurs may be thought of here. Such a view has to hold that sentences like (46), (47), (52) and (53) are reflexive sentences since they all involve the so-called reflexive form /tannattaam/ thus by invalidating in effect conditions (a)-(d) proposed above. It will have to argue that reflexive sentences in Laccadive Malayalam as well as other related languages involve a much more complex system of generation which would derive /tannattaam/ from predicate source where a series of embeddings are envisaged as possible. Consider sentence (46). It may be envisaged as similar to a structure of the following type:

1. x cause y cause z do something.

In (46) x, y and z are identical and hence the structure can be said to be as

2. x cause x cause x x. Acc. piraaki which is (3) in Laccadive Malayalam.

3. koojam cause koojam cause koojam koojana piraaki
Kojan cause Kojan cause Kojan Kojan-Acc. cursed
(Kojan caused Kojan caused Kojan to curse Kojan).

(3) can be claimed to be a special case of predicate raising, but quite characteristically the lexical insertion which replaces the 'V + cause' does not take place and instead 'cause' gets deleted to get

4. koojam koojam koojam koojana piraaki
Kojan Kojan Kojan [+ emp + unique] Kojan Acc. cursed.

(4) is the same as (49) and the derivation of sentence (46) (from (50)) is as shown already above. Here the identical NPs are in the same simple sentence only in the surface structure but not in the deep structure. This may force one to conclude that reflexivization takes place when the identical NPs are in a simple sentence (in surface), but identity can be marked for NPs of different constituent sentences which are all governed by a higher sentence node in the deep structure. It can be deduced that the condition of NP-identity in a 'simple sentence' is not a deep structure condition at all. It is only intermediary which completes the whole process of reflexivization. However it is to be admitted that intermediate structures very often function like deep structures in the sense that transformational rules are applied to them. But certain intermediate structures can be surface structures as well. All these may, it can be argued, force an analyst to go deeper from the

deep structure towards a semantic base which is required for the sort of alternative outlook proposed here.

One can also think of considering / tannaattaam / as / *tannaal taam / (-aal is Instrumental in Malayalam). In standard Malayalam as well as in Laccadive Malayalam it is usually substituted by accusative + *konṭu* as in / tannakkoṇṭu /. (The *-aal itself is used here for convenience). This may interpret (46) and (52) as (5) and (6) respectively:

- (5) *koojam koojana*aal koojam koojana piraaki*
 Kojan Kojan-by Kojan Kojan-Acc. cursed
- *koojam tann*aal taam koojana piraaki*
 kohan he-by he Kojan-Acc. cursed
 (*Kojan cursed Kojan by himself)
- *koojam tannattaam koojana piraaki*
 Kojan he-he [+emp+unique] Kojan-Acc. cursed
 (Kojan cursed Kojan (himself)).
- *koojan tannattaam piraki*
 Kojan he-he (self) cursed
 (Kojan cursed himself).
- (6) *koojam koojan*aal koojan pookaṇṭa*
 Kojan Kojan-by Kojan goes
- *koojam *tannaal taam pookaṇṭa*
 Kojam he-by he goes
 (Kojan goes by himself)
- *koojam tannattaamm pookaṇṭa*
 Kojan he-he (self) goes
 (Kojan goes alone).

Derivations (5) and (6) in fact can be related to the predicate raising analysis since / *-aal/ can /denote an underlying sense 'cause.' Interestingly, the structure proposed in (1) can be proved as sufficient to explain sentences like (47), (52) and (53) in which case /tannattaam/ can be treated as reflexive everywhere it occurs.

These alternatives though in the first instance point towards an oversimplified generalization are considered here as only speculative which, it is expected, may excite further interest. The main analysis presented through (48)-(58) satisfying conditions (a)-(b) seems to be convenient for the present purpose since it explains a number of facts. Evidences available from standard Malayalam are also in support of the same. See the following sentence in Standard Malayalam.

- (7) taantaan ceyyun~~n~~atin bhalam taantaan anubhavikka~~n~~am
 one one doing-which-of result one one suffer-need-will
 (One should suffer the consequences of one's own deeds)

where /taantaan/ is used in the sense of /tannattaan/ which in fact is indicative of reduplicated process. Even in the alternative analysis proposed (predicate raising), structure (4) will have to take into account the phenomenon of reduplication. However the alternative suggestion presented here would raise certain semantic problems regarding the process of reflexivization. It is admitted here that the various syntactic and semantic problems involved in the alternative suggestions presented through (1) – (6) are not fully clear to the present author at present.]

/taam/ and /taana/ can be said to be used to effect emphasis in the following sentences (of course, manifested differently):

59. oo! taam barum
 she she [+emp.] come will
 (It is she who will come).
60. oo! taana barum
 she she [+unique] come-will
 (She will come alone).

/taam/ in (59) indicates emphasis while /taam/ in (60) gives the meaning 'alone'.¹⁷

Hence the following feature specifications are made in the deep structure for those two formatives, which are ascertained as demonstrative in the surface structure.

61. /taam/ [+N+PRO+emp–unique].
 62. /taana/ [+N+PRO+emp+unique].

[Recall the fact that /taam/ when it is used with /tanna/ as /tannattaam/ is specified for /+unique/ also, see fn. 15.] In (60) /taana/ can be replaced by /tannattaam/ to mean 'alone'. (59) and (60) are shown to be derived as follows:

63. oo! oo! barum [+emp]
 she she [+emp] come will
 → oo! taam barum (= 59) [+emp]
 she she [+emp] come will
 (She only will come).
64. oo! oo! barum [+unique]
 she she (+unique) come-will
 → oo! taam barum [+unique]
 she she [+unique] come will

- ooḷ taana barum (=60) [+unique]
 she she [+unique] come-will
 (She will come alone).

In the place of /taam/ in Laccadive Malayalam, Standard Malayalam makes use of the form /tanne/ to indicate [+emp-unique]. Hence (59) is said as (65) in Standard Malayalam.

- (65) (a/b) avaḷ tanne varum
 she she [+emp/+unique] come will
 (She only will come/she will come alone).

But in (65) /tanne/ can be interpreted as either [+emp-unique] (62) (d) or [+emp+unique] (62) (b). When it receives the latter interpretation /tannattaan/ is often found to replace /tanne/. Such an evidence of /tanne/ being specified also as [+emp+unique] in Standard Malayalam will provide further support for considering it as [+unique] in /tannattaam/ in Laccadive Malayalam. (62) (a, b) in Standard Malayalam can be said to be derived as follows:

66. avaḷ avaḷ varum [+emp./+unique]
 she she [+emp./+unique] come-will
- (i) → avaḷ taan varum [+emp.]
 she she [+emp.] come-will
 → avaḷ tanne varum (=65 (a)) [+emp]
 she she [+emp] come-will
 (She only will come).
- (ii) → avaḷ taan varum [+unique]
 she she [+unique] come-will
 → avaḷ tanne varum (=65 (b)) [+unique]
 She she [+unique] come will
 (She will come alone).

These derivations are considered to be sufficient to explain the possible interpretations for (65).

/taana/ (in Laccadive Malayalam) and /taanee/, /taniye/ or /tanne/ [+unique] (in Standard Malayalam) often indicate that the action is gradual.¹⁸

See the following sentences (67) (in Laccadive Malayalam) and (68) (in Standard Malayalam).

67. abaḷa aa paṇi taana ṣiiyum
 (that) they that work they [+unique] do-will
 (They will do that work themselves, gradually).

68. *avanu atu taane manassilaakum*
 (that)-he-to (that) it he- [+unique+gradual] understand-will
 (He will gradually understand it himself).

To indicate this possibility the formatives under discussion are to be marked as [+instigator+unique+gradual] in such sentences. Native speakers find little difficulty in distinguishing the two specifications [± instigator + unique-gradual] and [± instigator + unique+gradual]. It is admitted here that the sentential contexts play a significant part in this connection.¹⁹

The occurrence of these formatives in sentences, in specified speech situations or discourse contexts, will help the speaker to assign the most natural and correct interpretations suitable to the contexts.

It has been shown that demonstrative /taam/ fulfils the syntactic function of adding emphasis to the immediately preceding NP in Laccadive Malayalam. Consider the following sentences:

69. *beem taam taana Raññaṇṭa*
 (this)-he he [+emp] he [+unique] sleeps
 (He sleeps by himself).
70. *beem taana taam Raññaṇṭa [+emp]*
 (this) he he [+unique] he [+emp] sleeps
 (He sleeps alone by himself)

In (69) /taam/ adds emphasis to /beem/ while in (70) it adds emphasis to /taana/ which immediately precedes it. In constructions which involve embedded sentences, /taam/ emphasizes the whole sentence which is dominated by an NP. See the following:

71. *naam barika taam śiiyum [+emp]*
 I coming it [+emp] do-will
 (I will definitely come).
72. *naam paRayanṭee taam ayina peeru*
 I say-which it [+emp] that-of name
 (What I say itself is its name).

The demonstratives /taam/, /tannattaam/ and /taana/ would exhibit certain co-occurrence restrictions and redundancies in sentences. As indicated above, /taam/ always requires an element preceding it in sentences unlike /taana/ or /tannattaam/. Examine the following permutations of elements in sentences (73)-(86).

73. *naam tannattaam atu śiiyum*
 I I-I [+emp + unique] (that) it do-will
 (I will do it myself).

74. tannattaam naaññatu śiiyum
I I [+ emp + unique] I (that) it do-will
(I will do it myself).
75. naaññatu taana śiiyum
I - (that) it I [+ unique + gradual] do
(I will do it alone (gradually)).
76. taana naññatu śiiyum
I [+ unique ± gradual] I - (that) it do-will
(I will do it alone (gradually)).
77. naam taaññatu śiiyum
I I [+ emp] (that) it do-will
(I myself will do it).
78. *taam naaññatu śiiyum
I [+ emp] I (that) it do-will
(to mean 'I myself will do it').
79. beeññatu taana taam muuraṇṭa
(this) be (that) it he [+ unique ± gradual] he [+ emp] cuts
(He cuts it by himself).
80. taana taam beeññatu muuraṇṭa
he [+unique±gradual] he [+emp] this (he) (that) it cuts
(He cuts it by himself).
81. beeññatu taam taana muuraṇṭa
(this) he (that) it it [+emp] he [+unique±gradual] cuts
(He cuts nothing but that).
82. *taam taana beeññatu muuraṇṭa
he [+emp] he [+unique+gradual] (this) he (that) it cuts
(to mean 'He cuts that itself').
83. taana beeññatu taam muuraṇṭa
he [+unique±gradual] (this) he that (it) it [+emp] cuts
(He cuts that itself (by himself)).
84. beeññatu taam taana muuraṇṭa
(this) he (that) it it [+emp] he [+unique±gradual] cuts
(He cuts that itself (by himself)).
85. *taam beeññatu taana muuraṇṭa
it [+emp] (this) he (that) it he [+unique±gradual] cuts
(to mean 'He cuts that itself (by himself)).

Sentences (78), (82) and (85) are ungrammatical since /taam/ is brought to the front of the sentence where it cannot fulfil any syntactic

function. But similar sentences can become grammatical in Standard Malayalam when /tanne/ is interpreted as [+emp+unique] as in

86. tanne *nāan* atu ceyyuum
[+emp+unique+gradual] I (that) it do-will
(I will do it myself).
87. tanne taane ivanatu muRikkunnu
he [+unique] he [+gradual] (it is) he (that) it cuts:
(He gradually cuts it himself).
88. tanne ivanatu taane muRikkunnu
he [+unique] (this)-he (that) it he [+gradual] cuts:
(He gradually cuts it himself).

Owing to the fact that both /tanne/ and /taane/ are often specified as [+unique] in Standard Malayalam they present an instance of redundancy when they co-occur in sentences. In (87) and (88) the redundancy is overcome by specifying /tanna/ for [+gradual] (cf. (67) and (68)). The following sentences present instances of redundancy in Laccadive Malayalam:

89. taana atu tannattaam puḷiyaṇṭa
it [+unique±gradual] (that) it it-it [+emp+unique] splits:
(It gradually splits by itself).
90. atu taana tannattaam puḷiyaṇṭa
(that) it it [+unique±gradual] it-it [+emp+unique] splits:
(It gradually splits by itself).
91. atu taam tannattaam puḷiyaṇṭa
(that) it it [+emp] it-it [+emp+unique] splits
(It itself splits by itself).
92. *taam atu tannattaam puḷiyaṇṭa
it [+emp] (that) it it-it [+emp+unique] splits
(to mean 'It itself splits by itself').

These redundancies can be done away with, if the following restrictions are made in the grammar. In (89) and (90) if /taana/ is [+unique] /tannattam/ should be [+emp+gradual] or vice versa. In (91) if /taam/ is [+emp] /tannattaam/ is generally [+unique/ but not vice versa.²⁰ Once again, (92) is ungrammatical.

So far the discussion was mainly on sentences with NP-N [+ sg.] subjects and hence little attention has been given to the so-called reflexive pronoun [- sg.] forms /tamm- / and /taññ- / in Laccadive Malayalam. The following discussion would briefly account for the function of such forms in sentences. Consider the following :

93. aba abaḷa piraaki
(that) they (that) they-Acc. cursed
(*They cursed them).
94. aba taññaḷa piraaki
(that) they they-Acc. cursed
(*They cursed them).
95. aba tannattaam piraaki
(that) they they-they [+ emp + unique] cursed
(They cursed themselves).

(93) and (95) are similar to sentences (31) – (33) and (34) – (36) respectively. The subject NP-N / -sg. / does not appear to be significant in the transformation of (93) – (95). But in (94) the pronominalized object NP is marked as / -sg. / (/ taññaḷ / ‘they’). In other words, the NP-identity is being preserved by using the plural form of / taam / in (94). This observation provides further support to the foregoing analysis presented for / tannattaam / in sentences (27) – (42). In (46) / tannattaam / receives the feature [+ refl.] mapped on to it since the object NP in the deep structure of the sentence is deleted. See the derivation from the intermediate structure (96):

96. aba aba aba abaḷa piraaki
(that) they- (that) they (that) they (that-) they-Acc. cursed
- aba taam taam abaḷa piraaki
(that) they they-they [+ emp + unique] (that) they-Acc. cursed
- aba tannattaam abaḷa piraaki [+ refl.]
(that) they they-they [+ emp + unique] they-Acc. cursed
- aba tannattaam piraaki [+ refl.]
(that) they they-they [+ emp + unique] cursed
(They cursed themselves).

/ taam / in the sentence structure is expected to fulfil a general condition of emphasizing or intensification of the subject. (96) above makes it clear that sentence (95) satisfies conditions (a) – (b) to assign a reflexive interpretation for / tannattaam /. Condition (c) would account for sentences like the ones given below:

97. aba abaḷa kaaryam nuukkaṇṭa
(that) they (that) they-Acc. matters look
(They look after their own matters).

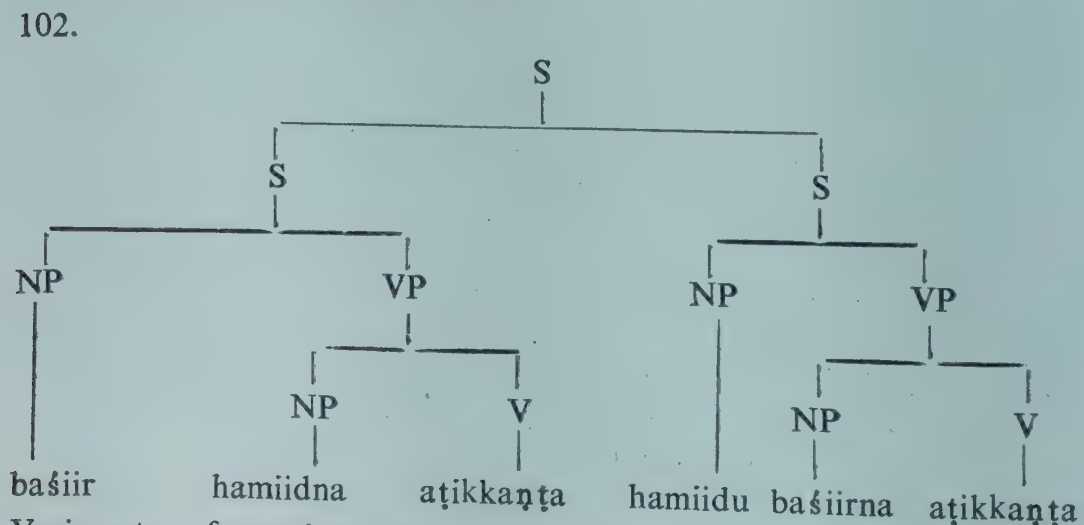
98. aba taññaḷa kaaryam nuukkaṇṭa
(that) they they-Acc. matters look
(They look after their own matters).
99. aba tannattaam taññaḷa kaaryam nuukkaṇṭa
(that) they they-they [+ emp + unique] they-Acc. matters look
(They look after their own matters themselves).
100. aba tannattaam kaaryam nuukkaṇṭa
(that) they they-they /+emp+unique/ matters look
(They look after (their own) matters themselves).

Both in (99) and (100) /tannattaam/ functions only as [+emp +unique]. Also, see the ambiguity in (100). Deletion of /taññaḷa/ in (99) would make a hearer to doubt in (100) whether the object is in relation to the subject /aba/ of the sentence, or to someone else who is not mentioned in the sentence. The derivations of sentences (97)-(100) involve embeddings which are not discussed in any detail here. Nevertheless, it needs mentioning that such derivations would show /abaḷa/ and hence /taññaḷa/ as originating from the predicate source in the embedded constituent sentences and become attributives to /kaaryam/ in (97) and (98).

The function of /tamm-/ is typical in sentences. Consider the sentence (101) below:

101. baṣiirum hamiidum tammi(l) aṭikkaṇṭa
Bashir-and Hameed-and them-in beat
(Bashir and Hameed beat each other).

(101) denotes a co-ordinated subject NP and thus it can be shown as derived from deep structure (102).



Various transformational rules as applied to (102) would derive sentence (101). (For a detailed discussion see Andrewskutty, 1972). The derivation follows:

103. bašiir hamiidna aṭikkaṇṭa, hamiidu bašiirna aṭikkaṇṭa
 Bashir Hameed-Acc. beats Hameed Bashir-Acc. beats
 (Bashir beats Hameed, Hameed beats Bashir).
- (a) → bašiir hamiidineem hamiidu bašiirneem aṭikkaṇṭa
 (identical deletion of verb & insertion of conjunctive particle)
 Bashir Hameed Acc.-and Hameed Bashir-Acc. and beats
 (Bashir beats Hameed and Hameed Bashir)
- (b) → bašiirum hamiidum hamiidneem bašiirneem aṭikkaṇṭa
 (tree pruning and regrouping)
 Bashir-and Hameed-and Hameed-Acc. Bashir-Acc. beat
 (Bashir and Hameed beat Hameed and Bashir)
- (c) → bašiirum hamiidum (respectively) hamiidneem bašiirneem
 aṭikkaṇṭa ('respectively' transformation)
 Bashir-and Hameed-and Hameed-and Bashir-and beat
 (Bashir and Hameed beat Hameed and Bashir respectively)
- (d) → *bašiirum hamiidum abala [+ loc] aṭikkaṇṭa
 Bashir-and Hameed-and (that) they-in beat (by NP-obj.
 deletion, pronoun [+ loc] substitution)
 (to mean 'Bashir and Hameed beat within themselves')
- (e) → bašiirum hamiidum tammi (1) aṭikkaṇṭa
 Bashir-and Hameed-and they-in beat
 (Bashir and Hameed beat each other).

In (101)/tammi (1)/denotes the reciprocal action, and hence it fulfils reflexivization. In (104) (b) the corresponding order of the subjects and objects is not preserved since it lacks a word 'respectively'. But a word 'respectively' is not identified in Laccadive Malayalam.²¹ So the structure (103) (c) is not realized as a surface structure in Laccadive Malayalam. In (103) (d) the NP (co-ordinated) object is being pronominalized as / abala /, and the addition of the locative case suffix /-i (1) / would show that the action takes place within the group of actors in the sentence (who are two in number). But it is not a natural sentence in Laccadive Malayalam unlike similar sentences (31)-(33).²³ (103) (e) = (101) is most natural in such situations to effect the meaning that the action is reflecting upon the actors. In (34)-(36) /tannattaam/ fulfils the process of reflexivization. Nevertheless, sentences (31)-(33) are also to be considered as reflexive since they involve NP-identity which is fundamental to the reflexivization process. It has been ascertained through (57) that /tannattaam/ is primarily to effect emphasis but eventually carries out the process of reflexivization also. This fact bears upon the discussion on (101). Evidently, (101)

does not involve any emphatic element though emphasis can be effected as in the following instances :

104. *baṣiiRum hamiidum tannattaam tammil aṭikkaṇṭa*
Bashir and Hameed-and they-they [+ emp + unique] they-in beat
(Bashir and Hameed beat each other alone).
105. *baṣiiRum hamiidum taana tammilaṭikkaṇṭa*
Bashir-and Hameed-and they [+unique ± gradual] they-in beat
(Bashir and Hameed beat each other alone, gradually).
106. *baṣiiRum hamiidum tammil taana aṭikkaṇṭa*
Bashir-and Hameed-and they-in-they [+ emp] beat
(Bashir and Hameed beat each other only) etc.

This is indicative of the fact that /tamm-/ is just a pronominal marked for [+refl.], since it replaces the identical NP (co-ordinated) object which eventually gets deleted to derive (101). In short, reflexive sentences which obey co-ordination reduction do not make use of the process of emphasizing or intensification of the subject NP in sentences to effect reflexivization.

A number of reflexive sentences make use of /tammi (1) (t) tammi (1)/ in Laccadive Malayalam. Consider the following :

107. *aaḷika tammi (1) (t) tammi (1) aṭikkaṇṭa*
people they-in they-in beat
(People beat among themselves).

In the sentence above /tammi (1) (t) tammi (1) / seems to give the notion that there are more than two /aaḷika / 'people'. Compare (107) with (108) below.

108. *aaḷika tammil aṭikkaṇṭa*
people they-in beat
(The two) people beat each other).

Quite probably /aaḷika / in (108) would mean only two people. This difference becomes more evident in sentences (109), (110) and (111).

109. *katiīseem ukkaasum tammi (1) aṭikkaṇṭa*
Katija and Ukkas-and they-in beat
(Katija and Ukkas beat each other).
110. *katiīseem ukkaasum aayiīseem tammil(1) (t) tammi(1) aṭikkaṇṭa*
Katija and Ukkas-and Ayisha they in-they-in beat
(Katija, Ukkas, and Ayisha beat among themselves).

111. *katiiseem ukkaasum tammi(l) (t) tammi(l) atikkaṇṭa*
 Katija-and Ukkas-and they-in they-in beat
 (Katija and Ukkas beat (*among themselves) each other.) In
 (111) /*tammi (l) (t) tammi (l)*/ does not seem to be natural or
 frequent in Laccadive Malayalam.²³

However, whether it is /*tammi (l)*/ or /*tammi (l) (t) tammi (l)*/ the variation does not impose any additional constraints on the process of reflexivization.

Interestingly enough, /*tammi (l)* /or/ *tammi (l) (t)tammi (l)* / used in the following intransitive sentences will yield ungrammaticality. See the following:

112. **aaliim aayiseem tammil pookaṇṭa*
 Ali-and Ayisha-and they-in go
 (*Ali and Ayisha go each other).
113. **katiiseem ukkaasum tammil naṭakkaṇṭa*
 Katiji and Ukkas-and they-in walk
 (*Katija and Ukkas walk each other).
114. **kaaṣiim hamseem tammi (l) (t) tammi (l) paataṇṭa*
 Kasim and Hamsa-and they-in they-in sing
 ("Kasim and Hamsa sing each other").
115. **aaliim aayiseem kulussum tammi (l) (t) tammi(l) ootaṇṭa*
 Ali and Ayisha-and Kuluss-and they-in they-in run
 (*Ali, Ayisha, and Kulussu run among themselves).

Compare (112)–(114) respectively with the following:

116. *aaliim aayiseem tammi (l) šeernnu pookaṇṭa*
 Ali-and Ayisha-and they-in having joined walk
 (Ali and Ayisha are going together).
117. *katiiseem ukkaasum tammi (l) šeernnu naṭakkaṇṭa*
 Katija and Ukkas-and they-in having-joined walk
 (Katija and Ukkas are walking together).
118. (?) *kaasiim hamseem tammi(l) (t)tammi(l) šeernnu naṭakkaṇṭa*
 Kasi-and Hamsa-and they-in they-in having joined walk
 (Kasi and Hamsa are walking together).
119. *Kaasiim hamseem tammi(l) šeernnu naṭakkaṇṭa*
 Kasim and Hamsa-and they-in having joined walk
 (Kasim and Hamsa are walking together).
120. *aaliim aayiseem kulussum tammi(l) (t)tammi(l) šeernnu ootaṇṭa*
 Ali – and Ayisha – and Kuluss – and they – in they-in having
 joined run
 (Ali, Ayisha and Kuluss are running together).

The addition of the verb / *šeer-* / after / *tammi(l)* / in (116) - (121) which shows sentence embeddings in the deep structures of these sentences points out that the action is done by more than one actor and it is conducted by them alone. One can even interpret that this is an abstract sense of reflexivization (as it is proposed in the alternative analysis).

[One can even examine sentences like-

1. *muunnu peeril tammi(l) nalloom aali aanṭoom*
three persons-in they-in good-he Ali is
(Among the three Ali is a good man).
2. *aba tammi(l) šeeranṭa*
that (they) they-in join
(They join together).

In (1) /*tammi(l)*/ effects comparison and in sentences like (2) the union of more than one person (also thing or equality etc. in certain instances) is ensured. However such instances are not discussed in any detail here.]

To conclude, the foregoing discussion on pronouns and reflexives deals with only the general nature and function of such constituents in Laccadive Malayalam. It is admitted that the process of pronominalization requires a much more detailed investigation which alone can provide all the insights into the nature of Laccadive Malayalam as well as other cognate languages. Nevertheless, it is beyond doubt that assertions like the ones made in the present discussion would enable one to bring to the fore issues which are basic to such an investigation.

FOOT NOTES

1. *Gundert (1851) 1962*: Personal pronouns (12)-(123) pp. 54-55, Reflexive pronoun / *taan* / (123) p. 55, Demonstrative and interrogative pronouns (125) - (129) pp. 55-57. The use of Personal pronouns (527)-(530) pp. 177-188, Different uses of / *taan* / (531) pp. 178-183, Demonstrative pronouns (542) (546) pp. 183-184, Interrogative pronouns (547) - (557) pp. 184-188. *Caldwell (1856) 1961*: The pronoun p. 359; Section I personal pronoun Singular 359-419; I Person, II Singular pp. 359-395; The reflexive pronoun 'self' pp. 395-402; Personal and Reflexive pronoun (Pl.) pp. 402-415; Section II Demonstrative and Interrogative pronouns. pp. 420-421; Section III on Relative

pronouns simply indicates that Dravidian languages have no relative pronoun, a participial form of the verb being used instead, p. 444. *Mathen (1863) 1969*: Sarvanaamañnal (253) – (254) p. 96. He deals with personal pronouns (255) pp. 97, Reflexives (263) p. 98 and demonstrative pronouns (267)–(273) pp. 100–101, ‘sarvaarthañnal’ (274)–(282), pp. 101–104. *Varma (1895) 1969*: Demonstrative pronouns p. 157; Specialities of pronouns (62) p. 159; Personal pronouns (1) p. 159, (3) p. 160; Reflexive pronouns /tan/ (‘svavaaci’) (2) p. 160; Demonstratives (1) – (3) pp. 160–161, (3) pp. 162–165; Interrogatives (2) p. 161. *Panikkar (1967) 1973*: Personal pronouns (4.16.1.1/2) p. 165; Reflexives (4.16.1.3) pp. 165–66; Demonstratives (5.3.1.) p. 211; Interrogatives (5.3.2.) 211–212. *Nair, 1960*: Personal pronouns (4.14.1), Reflexive (4.14.1.3) pp. 342–343, Demonstratives (5.3.1.) pp. 380–381, Interrogatives (5.3.2.) 381–382. *Roy, 1969*: Personal pronouns (A.3.4.13.1.1) pp. 280–281, Reflexive (A.3.4.1.1.3.) pp. 281–282, Demonstratives (A.3.5.1.3.) pp. 307–308, Interrogatives (A.3.5.1.4) pp. 308–309.

2. In Standard Malayalam /-n/ is the person number marker and it occurs only in the I Person ‘pronoun’ /naan/ ‘I’ while in II Person ‘pronoun’ /nii/ ‘you, Sg.’ the person number marker is- ϕ
3. nañna(l) ‘we (Excl.)’ is generally viewed as /na+m+kal/ > /nañkal/ > /nañna(l) and niñna(l) as /ni+m+kal/ > /niñkal/ > /niñna(l)/ and namma(l) ‘we (Incl.)’ as /na+m+kal/ > /namma(l) where /-m-/ and /-kal/ are treated as plural suffixes.
4. The spatial nearness is to be interpreted in relation to a conceptual space. It would enable one to feel the nearness of a person /thing though he/ it is at a distant place. Usually in writing (both ordinary and literary) such instances can be available in plenty. When one writes letters to his intimates friend who is of the same age as him or younger he may use the second person singular though the person is not near to him. Thus in that sense / nii / is [-prox. / . But of course, it has to be viewed differently in the above case. /niim/ [+prox] simply indicates the mental nearness of the speaker to the addressee (both in good and bad sense). Observe the fact that in religious prayers God is usually addressed in the II Person Singular. Often the proximate demonstrative is used in writing to indicate the person referred to. For example, in an essay on Gandhi he may be referred to as /iddeeham/ in Standard Malayalam by the

writer. All these are viewed here as stylistic devices in the language.

5. It may be pointed out that in instances like /ii meeśa/ 'this table' emphasis can be effected by /ii/ to mean 'this table itself' and hence /ii/ is also emphatic. But it is contended here that /ii meeśa/ meaning 'this table itself' is derived as /*ii ii meeśa/ → /ii meeśa/ which explains the emphasis satisfactorily. /ii meéśa/ 'this table' involves only demonstration, no emphasis.
6. This is a delicate problem of semantics. The contrasting pair of /aa niim/ and /ii niim/ would point out a number of interesting possibilities. In both, the formative /nii/ indicates a single person. But the demonstratives /+ prox./ and /- prox./ enable one to view the person as different. This difference may be indicative of a change in the physical and mental aspects of the person referred to or a delayed realization or identification on the part of the speaker due to factors relating to context and time. It is strongly contended here that this is an important observation regarding the function of demonstratives in Laccadive Malayalam.
7. Throughout the following discussion /taam/ is taken as the basic reflexive pronoun form representing all these formatives in sentences.
8. In Laccadive Malayalam such occurrences, even if found, are very rare.
9. 'Origin' means syntactic origin in the present discussion.
10. However the fact, that sentences (40), (42) and (43) are not to be considered as nonsensical though they are not quite natural or frequent in Laccadive Malayalam, gains supporting evidence from certain instances in Standard Malayalam where the formative /taam/ is specified as /- III/.
11. 'Unrealistic' simply means unnatural to the native speaker. It is not clear at present how tehy became unrealistic in speech. Such factors are well out of the present discussion.
12. In Standard Malayalam the use of /taan/ as II person singular is not rare. It is used to address friends or equals. Interestingly they are generally considered a bit more polite than /nii/ 'you' Sg. However, in the present analysis this occurrence of /taan/ as the subject is viewed as the result of a transformation which deletes the deep subject /nii/ in sentences. Consider the following sentences in Standard Malayalam:

1. taan enRe sneehitan aaṇu
you, Sg. my friend are
(You are my friend).

In (1) above / taan / is the subject. This is considered as derived from a structure.

2. *nii taan enRe sneehitan aaṇu.
you, Sg. you, Sg. my friend are
(to mean 'You are my friend').

It is contended here that /taan/ in fact adds emphasis to /nii/ which may be interpreted as showing more nearness to the addressee. Hence it is a bit more polite or intimate. In (2) /taan/ is marked as / + II / which makes it possible for the identical NP- subject deletion to derive (1). Nevertheless, such a deletion is not found possible for subject NPs marked for either [+ I] or [+ III]. Furthermore, (1) above, it seems, is a later development in the language due to factors which have been given little attention here.

13. The syntactic process of reduplication are of different types. The following general types are identified in Laccadive Malayalam :

1. echo-word duplication. E.g. maram kiram 'tree'
2. distributive reduplication. E.g. / at (u) atu / 'all those things'
3. duplication-onomatopoeic expression. E.g. / caṭa caṭa / 'doing something fastly'
4. reduplication for emphasis. (the same is under discussion here) In Standard Malayalam, in addition to the above the following types are also available.
5. reduplication of positive - negative :
E.g. / pooyii pooyilla / 'on the verge of going'
6. emphatic reduplication as in / illee (y) illa / 'not all present/ available, /vayyee vayyaa / 'not at all possible/able (to do something)' etc.

For a discussion on reduplication in Tamil, see *Schiffmann* 1971, pp. 68-69.

14. A rule for vowel contraction need not be unrealistic in Laccadive Malayalam because there are instances of vowel duration. If the latter is possible the former also can be said to be possible. Consider the following instances :

1. avan ooṭi pooyi
he having ran went
(He went running).

2. avan oo...ti pooyi.
he having run (and run) went
(He went running fast/continuously).

In (2) the vowel duration in / ooti / will indicate the continued action, carried out intensively. In (3) and (4) below the vowel duration is much more convincing, grammatically.

3. ool peRRu
she delivered
(She delivered (a child))

4. oola peeRu
she-of delivery
(Her delivery).

In peR (V) → peeRu (V. N.) the vowel duration results in a change in the grammatical status of the formative involved (in the surface structure by transformation).

| | | | | |
|-------|------------|---|-------|---------------|
| cut- | 'to burn' | → | cuutu | 'heat' |
| un- | 'to eat' | → | uunu | 'eating/mean' |
| eRiy- | 'to throw' | → | eeRu | 'throw' etc. |

15. [+ unique] in posited here for convenience of expression. It is indicative of a semantic sense that the actor is doing the action himself and alone ('solitary') without the o-operation of any one else. But the action may be instigated by the actor himself or by some one else. In the former case the actor is marked as [+ instigator] and in the latter as [- instigator]. These and a number of other factors will become more clear in the following discussion.
16. In Standard Malayalam and Tamil the particle / -ee / is added to / taan / which specifies a feature [+ unique] in the form / tannattaanee / which at least in Malayalam can be freely substituted by / tannattaa / . Then / tanna / needs to be only [+ emp].
17. It can also be marked as [+ gradual] indicating that the action is done by the actor himself, but gradually. Here also the actor can be [± instigator].
18. The action may be self instigated or not. But self-instigation is much more natural in such contexts.
19. Interestingly the sense that action is carried out 'gradually' is effected by the vowel duration in / taana /. See the difference between / taana / and / taa...na /. The latter is / + gradual /. Recall also fn. (14).

20. Strictly speaking /tannattaam/ can be even [+ emp + unique], but not [+ emp] alone if / taam / [+ emp].
21. In Standard Malayalam such constructions make use of the Sanskrit form /yudhakramam/ 'respectively' (See *Andrewskutty* 1972, p. 231), atleast in literary speech.
22. In Standard Malayalam also a sentence like—
avar avaril aṭiccu
(that) they (that) they-in beat
(They beat within themselves)
is not usual, though it satisfies all semantic needs.
23. Same is the case in Standard Malayalam, though, of course, the present author is aware of the idiosyncratic variations in the use of these forms.

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(This Paper is a modified version of
Andrewskutty, 1973, Chapter IV.)

PRONOUNS OF ADDRESS IN TAMIL AND SINHALESE - A Sociolinguistic Study

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Tamils and Sinhalese are the two major sociolinguistic groups in the Sri Lanka society. They are two different ethnic groups speaking languages belonging to different families and following religions that are today dynamically different. A majority of the Tamils in Sri Lanka follow Saivism, a sect in Hinduism and a majority of the Sinhalese follow Buddhism (by tradition Hiinayaana). Christians among Tamils and Sinhalese are recent converts and they are a minority.

In spite of several diversities between Tamils and Sinhalese there have been some kind of social interaction in the course of their co-existence for several centuries that have given rise to some almost mutual influence both socially and linguistically. There are several customs, beliefs, manners and linguistic patterns in syntax and in formation of certain idiomatic expressions shared by these groups of people. One of the most remarkable common social features is the caste system though the bulk of its reflections in the languages, as will be seen later, vary. No doubt, the caste system is more stratified among Tamils than among Sinhalese and its reflections in Tamil language are abundant.

The Tamil speaking Muslims of Sri Lanka are a considerable minority coming next to the Tamils in numerical figure. They stand out as a distinct social group differing markedly from the Tamils and Sinhalese in their entire social organization perhaps except for sharing a language spoken by the Tamils.¹ They follow Islam. Their

1. There are no Muslims whose mother tongue is Sinhalese, Very recently, however, some Muslims have chosen Sinhalese as the medium of education for their children.

society is free from caste-hierarchy. Many of the customs respected by the Tamils and Muslims stand in complete contradiction. Socially Muslims appear to be the most segregated group in Sri Lanka society. In Sri Lanka the most segregated Tamil dialect is also the Muslim Tamil. There are many restrictions even today that hinder any profound relationship between Tamils and Muslims on the one hand and Sinhalese and Muslims on the other. The impact of Islam on the social life of the Tamil speaking Muslim community is indeed very great. Their language reflects the social order of their life which differs from other Tamil speaking communities.

Christians in our society do uphold caste differences rigidly but only at some social level. As such these differences are also reflected in their language. In other words, unlike the influence of Islam on Tamil speaking Muslims, among Christians the basic structure of the social organization of Tamils and Sinhalese is not remarkably changed due to Christianity.

It will be interesting to investigate the several social differences that are reflected in the language spoken by the different communities referred to herein. One such difference taken for study here is the choice of a pronoun of address. In Tamil and Sinhalese a person can be addressed with more than a single pronoun and therefore there is always a choice for the addressee. The potential choice is predominantly governed by social factors. The social differences in each community mentioned herein and the differences in the choices of pronoun in respective languages or dialects can be well correlated. Briefly speaking, choice of pronouns of address is closely associated with two basic dimensions of social relationship between individuals, namely the relationship of 'superior inferior' and 'equal'.

A detailed analysis of the social contexts and the choices of pronouns in Tamil and Sinhalese will help us to bring out the similarities and dissimilarities in the structure of pronouns of address and their social and linguistic usages in these languages depending on their correlates with the differences among the varying social groups. An attempt such as this is made herein. This paper is written in two parts. The first part relates the pronouns of address in Tamil language and society; the second part concerns the situation in Sinhalese language and society; and the third part presents a contrastive analysis of both systems.

A majority of the Tamils of the Jaffna peninsula usually have a choice in speaking and writing Tamil between three pronouns of address: they use either *nii*, *niir* or *niimkaḷ* depending on the

social status of the person addressed. The social status of a person is conditioned by several factors such as caste, age, education, position or rank, sex, wealth, family background, dress, personality, etc. Certain factors dominate every other factor in certain social situations, and certain factors become irrelevant in some situations. Caste factor usually becomes irrelevant in case of low castes if the concerned addressee is well-educated and holds a position. Similarly age factor is nullified if the addressee belongs to a low caste and is uneducated or is very shabily dressed and clumsy. In other words, age is respected in the modern Tamil society, provided both the addressed and the addressee belong to higher castes. It is thus difficult to single out a sole factor as governing the social ranks of individuals that prompts the choices of pronouns. Usually several factors combine together are at play.

In our modern times *nii* and *niir* are singular pronouns and as such never used to indicate plural either in writing or speech. *niimka!* is a plural pronoun with a segmentable plural marker namely *-ka!*, but it is also used in the singular to indicate reverence or respect. In situations where one wants to show respect to the addressed he invariably chooses *niimka!*. For instance a student always uses *niimka!* to a teacher. In offices an inferior always uses *niimka!* to a superior. In situations as these the speaker is fully aware of the social position and prestige enjoyed by the addressed. But in situations where one is not sure of the exact social position or status of the addressed and when certain other factors such as age and dress warrant the use of *niimka!*, the speaker uses it but not with the full intention of showing respect to the addressed. The use of *niimka!* in this context is more to get over the difficulty in choosing the most appropriate pronoun. Let us call such respect as unintentional. Let us here take a classic situation to illustrate the behaviour and speech of an individual in such a context. If A, who is about 20 years old and who belongs to a higher caste meets B, perhaps a stranger, who is about 45 years and who is well dressed, will use the pronoun *niimka!*. But the moment A comes to know in the course of their conversation that B belongs to the barber community and does the profession of a barber somewhere, he would rather hesitate to or reluctantly use or may not use the pronoun *niimka!* to him further. He may even suddenly choose another pronoun of address whereby he would reduce the degree of respect shown. If B instead of doing the profession of a barber holds a position, then A would either continue to use *niimka!*, sometimes with certain amount of reluctance or mental conflict or even may avoid the use of any pronoun depending on

his personal caste consciousness. But today generally position counts over and above caste at least in face-to-face conversations.

In most familiar situations the selection of the pronouns can be more clearly predicted.

In almost all high-caste families, irrespective of urban versus rural differences, wife usually uses *niimkaḷ* to her husband. The same pattern is observed in educated low-caste families too. A wife did not, historically speaking, enjoy a status position in our society, to be certain, at least in the recent past. She was only second in rank to her husband. Even at an earlier period she who worshipped her husband was held in high esteem and was even believed to possess divine powers.

Husbands have been using only *nii* to their wives. But very recently a change has taken place in our society, one should say, only in the urban and other educated families. In these families *nii* has been replaced in this context wither by *niir* or *niimkaḷ*. This usage has also been extended to address children in these families. This new trend in our society is in contrast with the Indian Tamil society in the mainland where the husband invariably uses *nii* to wife and parents use *nii* to children. It is very difficult for an Indian to compromise a husband's use of *miimkaḷ* to his wife! In the uneducated rural families in Jaffna a husband usually uses *nii* to his wife. In an educated family a child usually uses *miimkaḷ* to his father and mother. In uneducated families children use *nii* to their parents. At some social level the use of *nii* is welcome especially when it is followed by other address terms such as kinship terms, terms of endearment etc. Within a family a younger uses either *nii* or *niimkaḷ* to address an elder. If the age difference is wide, the younger may always use *niimkaḷ*. An elder usually uses *nii* to his younger. It is interesting to note that *niir* is seldom used among brothers and sisters.

Today *nii* indicates non-respect or intimacy. *niir* indicates medial-respect. Usually equals use *niir* among themselves. Students, and officers of the same rank in an office use *niir* among themselves. A superior may use *niir* to a person who in his opinion deserves some respect, a kind of respect in between, respect and no-respect. A master uses *nii* to his servant. A high-caste person will use *nii* to a low-caste person, provided there are no other factors demanding a choice other than the one selected. Teachers in schools have been addressing the students with *nii* but recently it is being replaced by *niir*. This change is almost complete except in a few rural schools where teachers of the older generation still use *nii*. In an office usually a peon, a driver

and a labourer is addressed as *nii* by others holding a higher rank. In urban areas one could notice *nii* being slowly replaced by *niir* in some other social situations also. For instance, in an urban barber-saloon a barber is now being addressed as *niir* irrespective of his age whereas in a rural saloon *nii* is still the uncontested choice.

Thus there are social situations where the use of *nii* and *niir* is considered very appropriate by both the addressee and the addressed and especially in the rural society this hierarchical usage is most welcome. Otherwise it is considered as humiliating or making fun of the addressed. For instance if a master uses *niimkaḷ* to his servant he would consider it as if the master is making fun of him or is sarcastic in his expressions. On the other hand the usage of *nii* and *niir* can also be offensive in certain social situations. For instance, if a student uses *nii* or *niir* to a teacher it would be very offensive and sometimes provocative. When a person is angry or provoked he uses *nii* or *niir* to his superior.

In early Tamil society pronominal address was mostly reciprocal, an individual gave and received the same pronoun, namely *nii*. It was free from any kind of social stigma. This is evident from the fact that *nii* alone was used in singular. It was used to address the king, god as well as an ordinary man. Their social position did not matter for the choice of pronouns. On the other hand, the plural forms were several. They may be chronologically arranged as follows: *niim*, *nii-ir*, *niiyir*, *niivir*, *niir*, *niiyirkaḷ*, *niivirkaḷ*, *niirkaḷ* and *niimkaḷ*. Among these *nii-ir* and *niiyir* were the earliest usages. *niir* came into usage during the post-*Caṅkam* period. *niimkaḷ* came into usage around the 6th century A. D. *niim*, *nii-ir*, *niiyir* and *niirkaḷ* have today fallen out of use in spite of the efforts in the recent past of some scholars like V. K. Suryanarayana Sastri to bring back some of them into current usage (Vayyapuripillai 1956: 29-46). Today *niimkaḷ* has come to stay as the only plural pronoun of address. *niir* has become specialized both in modern writing and speech as a singular form but with the addition of certain social connotation—indicating medial respect.

A shift took place in the socio-semantic usage of the second person plural pronouns of address. At a stage plural forms were also used to refer to single individual in order to show additional respect. This has been noted in the earliest extant grammatical work in Tamil, namely *Tolkaappiyam* (*sūtra* 510). Probably this came into vogue during a time when social attitude changed towards a certain class of people. A king, teacher, a religious dignitary and a poet was probably addressed with the plural pronoun. In the earliest Tamil

epic namely *Cilappatikaaram*, generally assigned to the 2nd century A. D. (Meenakshisundaran, 1965 : 42) we are able to note the different usages of certain pronouns of address as revealing the different social attitudes towards people belonging to different social classes. (The characters in *Cilappatikaaram* use different pronouns of address according to varying social relationships.) In Tamil, of all the plural pronouns of address it was probably *niir* that gained first as singular honorific sense.

Today it is possible to describe the social hierarchy in our society on the basis of the use of pronouns of address. The Jaffna Tamil society may be roughly divided into three groups: one group deserving the use of *nii* alone; another group the use of *niir* and the third group *niimkaḷ*—from the point of a high-caste, educated and aged person. In this division some overlappings are likely. All the Tamil speakers in Jaffna use *nii* at one time or another. There are also Tamils who never use or sparingly use *niir* or *niimkaḷ*. A group of people called Harijans, especially the older generation among them, use only *nii*. Whenever they speak among themselves they use only *nii* irrespective of age, wealth and other factors. As there is no sense of social superiority or inferiority among themselves no one expects another among themselves to use *niir* or *niimkaḷ*. Thus the social significance of the pronouns of address which is dominant in other social groups is nil for the Harijans. But the Harijan caste members are aware of the existence of the pronouns *niir* and *niimkaḷ*. When they address members of the higher castes they usually use the singular pronoun *nii* plus various other address forms such as *taṇṭikay* or *nainaar* (for male) and *uṭaycci* or *naacciyaar* (for female) to indicate their respect to the addressed.

In a village situation the group that uses *niimkaḷ* reciprocally is indeed very small. The group that receives *nii* is the largest and the group that receives *niir* is the intermediary. This situation differs in an urban area for its out-look and the social setting are entirely different. The use of *niimkaḷ* is very dominant in the urban society. Next comes *niir*. Very few people receive *nii* in an urban society—usually only servants and menial workers.

A part from these three pronouns of address, *naam* a first person inclusive plural pronoun and *taamkaḷ* a third person reflexive plural pronoun are also used by members of certain social groups to address people who enjoy a higher social rank usually on the scale of high low caste in the rural society. *naam* indicates very high respect for the addressed. For instance a member of the Pariah caste (funeral drummer) uses *naam* to a *Veeḷaaḷa* (agriculturist). Sometimes an

uneducated rural *Veeḷaaḷa* uses it to a Brahmin priest. In an urban society where the out-look is rather cosmopolitan, *naam* and *taamkaḷ* are not used in ordinary conversations among various social groups. But one may hear *taamkaḷ* being used in platform speeches to refer to a person of high standing say as for instance a great scholar, a religious dignitary, a great social worker or a statesman. In Indian spoken Tamil *naam* is used by all frequently as a first person inclusive plural form but never as in Jaffna. It is interesting to note here that *naam* denotes second person singular honorific in one of Saint Tirunaavukkaracas' hymns (Singaravelan, 1971 : 349-54).

To start with *naam* was a first person (inclusive?) plural form. The choice of this form by certain groups to address the higher probably reveals a social relation—a sense of surrendering themselves to their masters or lords, may be inferred. With the progress of education and the social reforms the usage of *naam* is now fast disappearing.

There is also a tendency in certain groups of the Tamil society in Jaffna to avoid the use of all pronouns of address while speaking to their superiors, especially caste-wise. These groups use only *nii* among themselves. Probably these groups feel that avoiding pronouns itself is a mark of high respect for the addressed. Instead of pronouns, certain kinship terms or other terms of address like *ayyaa* 'sir', 'master', *ammaa* 'madam' are used depending on the status of the addressed. In such cases the concord in the finite verb will be usually in the neuter gender. For example, *tampi emkay pookutu* literally 'younger brother-where going', *ayyaakku naan taaren* 'to sir—I-give', instead of a second person pronoun and its appropriate verb correlate : *nii emkay pooraay*, *niir emkay pooriir*, *niimkaḷ emkay pooriimkaḷ* / *pooriyaḷ* 'where are you going?'.

There are two parallel but different social connotations for the use of verbs inflected to neuter with human nouns as subject. In some social groups usually with lower rank, the use of finite verb in neuter with human-subject concerned, while addressing the higher rank is considered, perhaps by both, as indicating respect. But on the other hand, its use among the members of the higher status group or to a person whose social status cannot be identified is considered as indicating only medial respect.

The Tamil speaking Muslim community uses only two pronouns : *nii* and *niimkaḷ*. Seldom they use *niir*. This parallels the situation in the mainland (Indian) dialect of Tamil. Relatively speaking, Muslims have a restricted usage of *nii*. It is very seldom

that a Muslim uses *nii* to a person who is very much older than the addressee. Perhaps age is an important factor in deciding the use of *nii* or *niimka!* in familiar situations. But in the Tamil society, a Hindu or a Christian, as said earlier, uses *nii* to an elderly person also if his caste and social status are low. But a Muslim will not usually use *nii* even to a beggar if he is very much older than he. It is also noteworthy that among the Muslim adults the mutual use of *niimka!* is very dominant both in rural and urban society. This is probably because of their religion wherein the concepts of equality and brotherhood are emphasized. Christianity too does not accomodate caste - differences. But the Christian society is still open to the influence of Hindu society and not segregated as the Muslim society.

Hindu Tamils and Muslims use *nii* in prayers to their gods. Christian Tamils make an exception by using *niir* to their god. No one uses *niimka!*.

The use of *nii* is acceptable to all in poetry. It is perhaps used in poetry as a colourless social pronoun and perhaps this is a trait of its old usage.

The verb-correlates of the pronouns of address in Jaffna Tamil are illustrated below with the verb form *cey* 'do'.²

| pronouns | imperative | future | present | past |
|----------------|---------------------|---------------------|------------------------|---------------------|
| <i>nii</i> | <i>cey</i> | <i>cey-v-aay</i> | <i>cey-y-ir-aay</i> | <i>cey-t-aay</i> |
| <i>niir</i> | <i>cey-y-um</i> | <i>cey-v-iir</i> | <i>cey-y-ir-iir</i> | <i>cey-t-iir</i> |
| <i>niimka!</i> | <i>cey-y-umkoo!</i> | <i>cey-v-iyal!</i> | <i>cey-y-ir-iyal!</i> | <i>cey-t-iyal!</i> |
| | <i>cey-y-umka!</i> | <i>cey-v-iimka!</i> | <i>cey-y-ir-iimka!</i> | <i>cey-t-iimka!</i> |
| <i>naam</i> | <i>cey-y-a</i> | <i>cey-y-um</i> | <i>cey-y-utu</i> | <i>cey-t-utu</i> |

Needless to say, it is extremely hard to formulate any simple set of rules governing the behaviour of the addressee-pronouns in Sinhalese. Numerous factors—social and psychological—contribute to the selection as well as the replacement of a given pronominal form in a specifiable talking-context. An attempt is made in this section to outline very briefly, the structure of the addressee pronouns as well as their secio-semantic correlates. As there is a considerable regional variation in the usage of these pronouns, only their realization in a single focal-area (viz. Colombo and its northern suburbs) has been taken up for discussion. This is further restricted to the informal colloquial of Sinhalese Buddhists.

2. -y- can be explained by a familiar morphophonomic rule in Tamil.

The fundamental cleavage of the Sinhalese Buddhist society signalled by the specific selection of the addressee-pronoun is that between the clergy and the laity. A layman confronts a Buddhist monk primarily in the following situations: (1) donor vs. priest, (2) listener vs. preacher and (3) disciple vs. preceptor. Of these, the first two situations are asymmetrical in that the monk invariably functions as the priest or the preacher, there being no possibility for the exchange of roles; whereas the last can be reciprocal, the monk functioning either as the preceptor or the disciple, or the layman, as the case may be. The last two situations, however, come under formal talk and is therefore not discussed herein.

Customarily, a layman uses the pronoun *obāvahanse* (which is *obā* 'you' + *vahanse* 'respectful') or *tamunnaanse* both meaning 'you-respectful', when addressing a monk. Of these two forms, *tamunnaanse* is one degree low in the scale of respect, *obāvahanse* according the highest degree of conceivable respect.

When monks talk among themselves, the following factors broadly govern the selection of the addressee pronoun:

- (1) whether higher-ordained or novice (i.e. whether *upasampanna* or *saamaṇera*),
- (2) if higher-ordained, whether elder, equal or junior.

Cutting across this is the teacher-pupil succession (*guru-goola sambandhataa*). A novice, no matter what his age is or how many years he has spent ordained, by the monastic rules applicable to the order of monks, he is not qualified to ordain another as a pupil. A novice occupies the lowest rank in the scale of monastic respect, and between two novices one who is senior in ordination qualifies himself for more respect than one that is junior in ordination. If both monks are higher-ordained and equal and if both qualify themselves to be elders³, they would usually address each other as *stāvīṇye* (literally meaning 'elder'). The form *aayusmatun* is used by a senior addressing a junior or when two juniors address each other. A junior or novice will always address a senior by the term *haamduruvānee* (literally meaning 'monk'), and in all these situations the implied pronoun is *obāvahanse*. A novice or a pupil is always addressed as *unnaanse*.

The addressee-pronominal system used by the laity when speaking among themselves is broadly classifiable into related structural sets as :

-
3. To qualify as an elder, a high-ordained monk is expected to have spent minimally ten retreats and it is only then that he is considered qualified by monastic-law to ordain a person as his pupil.

1. {*eyaa*, *tamuse*, *uṁbā*, *too*}
2. {*bañ*, *bolā*}

Of these set 11 is defective in that, its members occur exclusively as vocative forms without inflecting for any other case-form. Contrastively members of set 1 enter into the full paradigm.⁴ The selection of a specific addressee-pronoun in a given speaking-situation depends on several factors, such as age-group, sex, social status, external appearance and personality etc. of the addressee. Of course, it is quite customary to delete the addressee-pronoun in connected discourse, as well as in situations where the addressee is completely strange to the speaker. However in all such contexts, the imperative-verb concord would tell us what the implied pronominal reference is.

For people belonging to the age-group, say, below 50, *-eyaa* is the most polite pronominal form of address. It is neutral as to sex in that it can be used by male/female and by female to male/female. Generally for people, say, above 50, *-eyaa* is a pronoun of feminine address only, and is as such seldom used by males when talking among themselves. With them *tamuse* is the polite form of address when talking to males, whereas with those for whom *eyaa* is the polite form, *tamuse* conveys a slight impolite connotation. *tamuse*, however, is not normally used in addressing females. Those with whom *tamuse* is the polite form, use *uṁbā* as a neutral addressee-pronoun with reference to both males and females, but those for whom *eyaa* is the polite form consider *uṁbā* as an impolite form of address. However, they might use *uṁbā* in addressing their children and minor employees, and the form is non-reciprocal. In rural areas, however, *uṁbā* is used reciprocally between parents and children, siblings, and husband and wife. *too* is the most impolite pronominal-form of address. In very backward areas, however, parents might use *too* form in addressing children and it is non-reciprocal. Generally speaking *too* is the form one frequently hears in moods of anger and quarrelling.

bañ and *bolā* are the vocative correlates of *uṁbā* and *too* respectively. These rarely occur in absolute-sentence-initial position. All the pronoun forms given above except *too*, *bolā* and *bañ* form their plural by adding *-la*. Thus *eyaala*, *tamusela*, *umbā*, etc., *too* and *bolā* have *topi* and *belav* respectively in the plural. *bañ* usually does

4. The animate pronominal paradigm consists of a five-way case into a two-way number system as follows: direct, accusative, dative, genitive and instrumental into singular vs plural.

not appear in a plural form even in plural contexts. However, in certain stray situations one might hear the form *balla* (*bañ + la*) as the formal plural of *bañ*.

In certain situations, the otherwise impolite pronominal form *uṁbā* / *bañ* and *too* / *bolā* are used to express deep affection. This is, however, restricted to talk between very close friends, lovers, husband and wife, parents and children, and siblings.

Basically the imperative verb-concord with the aforesaid pronouns is taken up here. There are four imperative markers *nḍā* ∞ *-nāva* ∞ *pañ* ∞ (*piyā* ∞ ∅). Of these *-nḍā* agrees with the pronouns *obāvahanse* / *tamunnaanse* and *oyaa*. *-nḍā* has two major regional-variation *-nne* (South) and *-nṭā* (up country). Of all the three alternants *-nnā* is considered to be the more standard type and the most polite form. This is confirmed by the fact that both *-nḍā* and *-nṭā* users switch on to the *-nnā* form in formal situations. *-nāva* agrees with *tamuse*, *pañ* with *uṁbā* and *-piyā* ∞ ∅ with *too*. This is illustrated below with the verb-base *kārā* - 'do'.

| | | | |
|--------------------|---|-------------------|------------------------------|
| <i>obāvahanse</i> | } | | |
| <i>tamunnaanse</i> | | | |
| <i>oyaa</i> | | <i>kāranḍā</i> | 'you (monk - respectful) do' |
| <i>tamuse</i> | | <i>kāranḍā</i> | 'you do' |
| <i>uṁbā</i> | | <i>kāranāva</i> | 'you do' |
| <i>too</i> | | <i>kārapañ</i> | 'you do' |
| | | <i>kārapiyā</i> / | 'you do' |
| | | <i>kārā</i> | |

The plurals of these imperative forms except *-piyā* ∞ ∅ is formed by adding *-la*. Thus *-nḍāla*, *-nāvala*, *-palla* (*pañ + la*). *-piyā* ∞ ∅ add *-v* yielding the forms *-piyav* and *-v*.

Note that the clergy vs. laity distinction brought out in the specific selection of the addressee pronoun is neutralized at the level of imperative verb-concord.

When one is not sure of the exact degree of respect to be accorded to the addressee, one might avoid the usage of the aforesaid imperative verbal forms as they are positive-evaluative categories, and instead resort to any of the following verbal categories which are extendable to imply that one is 'non-committed':

- mu* form, which is otherwise the I Person plural hortative;
- infinitive plus *-oonā* construction, which otherwise yields the sense 'must' do (the action implied by the infinitive);

- (c) past conditional plus *hoñday* construction, which otherwise means good if one were to do (the action implied by the conditional form); and
- (d) the present-interrogative form (i.e. *-nəva + də ?*).

In all these usages no overt pronominal form is used, since its usage would invariably locate the person in a positive rank in the scale of politeness/respect. To illustrate,

mee vaedə kərəmū

this work (let us do) → do this work (you).

„ „ *kərannə oonə*
(do must) → „ „ „

„ „ *keruvet honday*
(if one were to do good) → „ „ „

„ „ *kərənəvadə ?*
(will you do ?) → „ „ „

In such contexts, some people may optionally use *tamuñ* as a non-committal addressee-pronominal form. Thus,

tamuñ mee vaed kərəmu - 'you do this work' etc.

Connected with the ranking of addressee-pronominal forms are the words expressive of consent in answer to yes/no questions. There are three such forms, *ehēy*, *ehemay* and *ov*. Of these *ehēy* is used by the laity when talking with monks, and by monks when talking with superiors. *ehemay* is the form used by the laity when speaking with higher officials and dignitaries, and dignitaries, and by students to teachers etc. The form that is otherwise used by the laity is *ov*. However in current speech *ov* seems to be getting extended also into contexts where *ehemay* is used. It is worth noting that the selection of the 'consent-words' corroborates the major classification of the Sinhalese Buddhist society into clergy vs. laity as signalled by the addressee-pronominal selection.

The classification of the lay-society signalled by the pronominal selection is primarily along the politeness-scale. This yields three major groups: the *oyaa*-group, the *tamuse*-group and the *uñbā*-group. The pronoun *too* is, however, very rarely used in normal conversation (even when speaking to inferiors such as young servant boys / girls).

From the addressee's view-point, of course, *oyaa* is the form which is most preferred irrespective of social status or age, and it is especially so with the polite imperative form *-ndə*. In day-to-day colloquial discourse, the specific selection of the lay-addressee-pronominal forms seem to be more psychologically conditioned, although it may presuppose a type of implicit social-ranking.

From the above study, the following points of contrast between the Tamil and Sinhalese address-pronominal systems come to light.

The fundamental distinction of the Sinhalese Buddhist society brought to relief by the behaviour of the addressee-pronouns is that between the clergy and the laity which fact is totally irrelevant for the Tamil society as reflected in the behaviour of the corresponding Tamil pronouns. The Sinhalese lay-society is classifiable into three groups: *oyaa*-group, *tamuse*-group and the *um̃bā*-group depending on the selection of the addressee-pronouns. Similarly the Tamil society presents a three-way stratification: *niimka!* -group, *niir*-group and the *nii*-group, based on the selection of the addressee-pronominal counterpart in Tamil. The *naam*-group has become very marginal in modern Tamil society. However the factors on which this type of classification is based in the two societies are completely different. The governing factor in the Tamil society being social, primarily caste and social-rank based, and as such the choice of the appropriate pronoun being already made for the speaker; whereas the selection of an addressee-pronoun in Sinhalese depends more on the attitude of the speaker towards the addressee and seems to be more a psychological fact than a socially pre-conditioned fact. Although there is so to say a semi-functional caste system underlying the Sinhalese society it is seldom realized at the level of speech; and, therefore, unlike in the Tamil society, caste and social-rank distinction never function as a determiner of the addressee pronoun-selection in Sinhalese. What is crucial for the Sinhalese society is the ranking of a person along a politeness (respect) scale, whereas in Tamil it is a socio-economic scale. In Tamil, the ranking of a person is rather rigid as revealed by the specified linguistic exponents, whereas in Sinhalese it is more flexible. In the Sinhalese society age can be considered as one of the constant factors conditioning the selection of an appropriate pronominal along the politeness scale, whereas in the Tamil society other factors such as social-rank and caste seem to be dominant.

From the addressee's view-point, irrespective of age or social status, always the *oyaa*-form (plus its imperative verb correlates) is the expected form in Sinhalese; whereas in Tamil, to use an honorific/respectful pronoun when addressing an inferior (caste-wise / socio-economic-wise), seems to be sarcastic or even insulting.

It is worth noting that the consent - words corroborating the social hierarchy signalled by the addressee-pronouns in Sinhalese are strikingly absent in Tamil.

Underlying the organization of the Sinhalese society, these seems to be the strictly Buddhistic-view according to which the relevant

classification of the society is into elergy vs. laity; whereas in Tamil society we find the strictly Hindu out-look where caste-distinction is an invariable concomitant. True that there is a somewhat parallel caste-distinction among the Sinhalese Buddhists, which aspect as pointed out earlier is never indisputably realized at the speech level.

The extension of the otherwise impolite pronoun *nii* in Tamil in addressing 'god', offers yet another striking point of contrast to the situation maintained in Sinhalese. *nii* can translate into Sinhalese either as *um̃bā* or *too*, but in Sinhalese none of these forms are ever used in addressing gods.

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CASTE AND LANGUAGE

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Abstract: This paper discusses the validity of the the phenomenon of caste as the sole variable characterizing dialects in India and rejects that hypothesis.

The contention of this paper is that caste difference in dialects may be a marginally determinant variable only at the rural sub-caste level. In urban situation or situations where other socially competitive high castes share Brahminical features including marked language features and there is a mutual inflow of communication, 'caste dialect' not only becomes a meaningless nomenclature, but it tries to preserve a social institution which is otherwise in an osmosis.

Every group acquires symbols as markers of their independent identity. Language is one such marker. When a person opens his mouth he identifies himself with some and separates himself from the others. Thus language is a powerful marker trait of group identity. However, it would be a tenuous assumption that this group can always be identified with a caste. In fact, the talk about caste dialects may even have negatively reinforced caste identities and feelings.

Scholars who have investigated language variation in India have taken caste dialect for granted as *a priori* assumption. Thus McCormack (1960) labelled his three strata of Dharwar Kannada as Brahmin, non-Brahmin and Harijan. In his paper '*A Causal Analysis of Caste Dialects*' in '*Studies in Indian Linguistics*' (1968) he claims that "Indian speech communities are conscious of caste dialects." Bright and Ramanujan (1964) have similarly asserted that 'clear-cut social dialects are found to be associated with the caste system of Hindu Society'. Ramanujan, in his discussion of the structure of variation (1970) observes that, "Caste dialects, like regional dialects,

tend to be mutually exclusive, that is, a person who speaks a Brahmin dialect may or may not speak any other" (p. 461 F.N. 2). He even goes one step further and claims that "There is good reason to believe that region and caste, are independent variables; every Tamil speaker must be identified for both" (p. 462). In *A Survey of the Mysore District*, the Editor D.N.S. Bhatt (1968) claims that "there are three distinct social levels, Brahmin, untouchable and the rest".

It is my contention that the term 'caste dialect' is a contribution of the social scientists working in the area and is the result of certain kinds of abstractions. The term 'caste dialect' implies that a caste group is a homogeneous communication group, and the variety of speech so designated is both a structural and cultural isolate. Owing to the confusion between the cultural and structural dimensions of caste and the over generalization of the caste hierarchy, diglossic and, multiglossic situation leading to the operation of Sanskritization pidginization, analogization and standardization is concealed. Such generalizations do not provide any new insight to the study of linguistic variation and miss the nuances, complexities and the subtleties of change which cut across caste boundaries. Further, there are no social dialects associated exclusively with the caste system of the Hindu society. As all the Brahmins speaking the same language do not form one endogamous group, similarly one endogamous group spread across different geographical regions do not speak one variety of language. A good case study is provided by Katre (1966), who while speaking of the formation of Konkani speaks of six Konkani dialects. According to him they are : Konkani spoken by the Kanara or Chitrapur Sārasvats, Konkani spoken by the Gauda Sārasvats, Konkani of the Goa Hindus, Konkani of the Christians of Mangalore and South Kanara, Konkani of the Christians of North Kanara and Konkani of the Christians of Goa (Introduction 1). Linguistic variations are not correlated with individuals nor with caste groups but with a number of social contexts which cut across caste groups.

The so-called caste dialects differ according to the place of origin of the speakers using them. For example, the B dialects of Dharwar and Mysore Kannada are not the same. If however the orthodox Madhvas of Dharwar and Mysore share marking, identifying features, this only goes to prove that caste may be one of the significant variables at the rural sub-caste level. The Padaiyachi community in Tamil Nadu has regional variation in their dialect. The community in South Arcot and parts of North Arcot does not have voiced: voiceless contrast in stops, whereas that in Madras, Chingelput and

parts of North Arcot has this distinction. In purposive case (in the meaning 'for the sake of') the Padaiyachi in the former area use the suffix *-kkaaka* [kkāha], whereas in the latter area they use *-kkoocaram* [kkoosaram]. If the situation pertaining to one community speaking one language is so varied, the situation about one caste speaking different languages, even though within the same overall linguistic cultural matrix, is bound to be equally diverse, if not more. The Tamil B word for 'husband' is *āmbadevā*, whereas the non-B word is *puruṣē*. The Tulu words for the same, on the other hand, are B *puruṣe* and non-B *Kandane* respectively.

The formal and informal or public and private styles are not the preserves of the Brahmin dialect. They are dictated by societal needs of addressing the public and therefore is to be associated more with education and elite formation rather than with caste. Nayak (1967) rightly observes about the Kannada situation that "what is important is not the caste of the speakers but his educational background, profession and economic status. Whether the speaker is from an urban area or a village is also a considerable point" (Introduction p. 23). In any case, whether it is Tamil or Kannada, no caste markers are to be found in the standard literary language and in the formal spoken language which is close to it. Nayak (1967), contradicting Bright, observes that "Bright's Brahmin informant, for instance, uses / f z ̄ / whereas the non-Brahmin informant uses in their place / p j ā / respectively. In our area, we have observed that uneducated Brahmins and non-Brahmins both use / p j ā / while educated speakers of both groups use / f z ā ~ ̄ /" (*Ibid*). Even Ramanujan (1970) speaks of caste variation in speech as an attribute of informal Tamil.

The differences between informal B and formal non-B on the one hand and informal B and informal non-B on the other cannot be explained on the basis of caste hierarchy. Andree Sjöberg (1967), in the paper 'Formal Varieties of Telugu' (University of Michigan, Mimeo) posits sub-divisions of upper and lower caste under both varieties. While upper caste is further sub-divided into B and non-B, all of the nodes including B are divided into educated and uneducated. This shows that caste is merely one of the contextual axes on which speech variation can be studied.

The dimensions of regional variation, social variations in the context of formality : informality, educated : uneducated, etc. have not been sufficiently differentiated to warrant the concept of 'caste dialect'. It is as much untrue to talk of the B dialect as of the non-B dialect. Both B and non-B are caste clusters rather than castes.

Moreover, such a position forces one to lump Brahmins from different regions, and different educational backgrounds together and assume one uniform dialect. It also forces one to lump different castes covering a wide spectrum of social backgrounds together and assume another uniform dialect called non-B.

This position ignores existing realities where the Brahmins share some language traits with non-Brahmins. For example, such pairs of lexical items as *sādam*: *sōru* 'food' are said to distinguish Brahmin and non-Brahmin informal Tamil dialects. But the Mudaliars also use *sādam* and the Brahmins use *sōru* in a somewhat derogatory manner, while referring to food and while talking to the non-Brahmins (Ramanujan, 1970). In the South Arcot District of Tamil Nadu the so-called non-Brahmin dialect is accepted as standard even by the Brahmin, thus nullifying such distinction. The purposive case marker *-kkaaka* is shared by the relatively lower caste Padaiyachi in South Arcot, parts of North Arcot, the Brahmins of this area as well as of Madras, Chingleput, parts of North Arcot, and also by the Mudaliars of Tirukkivilur. The other marker *-kkoocaram* is shared by the Padaiyachi of the Chingleput and parts of North Arcot area, the Mudaliars of Madras as well as the Brahmins of Tirunelveli. Similarly the form *ava* as distinct from *avanga* is used by both the Tirunelveli Brahmins and the non-Brahmin Pillais. Even within one District, Mysore, as Bhatt points out, the dropping of *h* in colloquial speech, which is considered to be a marker of the non-Brahmin Kannada, does not take place 'in any caste dialect whatsoever in the western part of Mysore District'.

The marker traits are confined to the surface and not deep enough in the overall linguistic variation. Most of it is confined to difference in lexical items, and the resultant phonology. Since innovations in the dialects of different social classes are motivated independent of one another and parallel innovations are seen at both levels (McCormack 1968, Ramanujan 1970), to talk of 'foreign phonology' only at the higher level becomes meaningless. Borrowing at different social class levels is a matter of degree rather than of kind.

Much more interesting to investigate are variations like Kannada noun-final *e* which ranges from *e* > *æ* > *av* > *a*, and is shared by the untouchable Holeyas as well as by touchable lower classes and sometimes are shared even by uneducated Brahmins in certain areas. The areal distribution of these features coupled with information on the social context of their use may provide a clue to the direction of innovation in the language. Similar views can be taken

of competing Kannada forms like *banda*, and *bandlu*. *banda* and *bandlu* in the sense of 'she came' are areally differentiated rather than as caste markers.

It is equally interesting to study how the process of socialization in the caste society restricts majority of the people's access to literacy and education and thus binds them to speech codes which are 'restricted' in the Bernsteinian sense. The marker traits considered to be caste specific, if any, are cultivated the same way as the Anglo-Indian child is taught to retain group specific features like *waif* > *waf*, *taim* > *tam*, *haus* > *hɔ:s*, etc. But when the same people attain the meta-language to consciously understand the difference and thus the ability to change it, the context-bound speech code gets restricted only to the family surrounding or at the most to people of the same age, sex, rank and status. In public, all, irrespective of whether they are Brahmins or non-Brahmins, tend to use the same code which then develops as the areal standard.

What may be in the consciousness of the speech communities is the notion of ranking rather than of caste. A good example is provided by the following conventional categorization of utterances:

- | | |
|----------------------------------|------------------------------------|
| (1) Brahmin-Veccuṇḍrikkā | } 'He (Hon) continues
to keep'. |
| (2) Non-Brahmin-Veccukkiṭrikkāri | |
| (3) Written-Vaittukkoṇḍrikkirār | |

My informants' reaction shows that (a) they identify (1) as Brahmin because of the form -ṇḍu- in place of NB -kkiṭṭu- and the loss of the honorific -r. (b) My Brahmin informants told me that Brahmin youngsters while referring to their elders may fluctuate between (1) and (2). (c) Non-B informants, particularly from Dindigul, pointed out that the Brahmins in that area, while talking among themselves use the form *sie: yatkkiṭā*, while talking to the non-B they use the form *vaiccirikkānga*. (d) It was found out that the spoken form *vaiccirikkānga* is used by the Naidus and Brahmins of Dindigul as well as by the Harijans of South Arcot. (e) It was also found out that forms like *vaittukkoṇḍirukkiraar* and *vaittirukkiraar* (*hal*) are used in free variation for written and formal speech. There are two sets of spoken forms regionally distributed as follows: (i) *vaccukkiṭṭurukkaar* ~ *vaccurukkaar* (*nga*) and (ii) *vaccukkiṇurukkaar* ~ *vaccurukka*. There is also a marked Brahmin form *vaccuṇḍurukkaa*. All the above forms carry the same meaning, 'he (hon) is keeping'. What is interesting in the process is that those who use the above forms used the marked Brahmin form in informal spoken context. On the other, hand at present, all including Brahmins use *vaccukkiṭṭuru-kkaar* in informal spoken contexts. This supports Ramanujan's

observation that non-B forms form the basis of standardization of present-day Tamil. Whatever it may be, the process of Sanskritization in the sociological sense is in evidence here. Elsewhere, Damle (1966) has pointed out that the educated Harijan boy resents the use of somewhat socially marked dialect of his parents. He tries to emulate the socially accepted standard. The above example further shows that standard is a shifting phenomenon and that the matrix of Sanskritization changes with the change in social acceptability of linguistic forms. Under these circumstances, it is all the more untenable to isolate and give categorical labels to dialects.

The burden of argument of this presentation is that the notion 'caste dialect' is unscientific and unnecessary. Caste may be one of the contexts along with rural: urban, educated: uneducated, peer group: older generation, male: female, etc.; but certainly as an approach to, and category in, dialectology it has much less validity than what has been attributed to it by scholars.

The arguments against caste dialects can be extended to categorical notions like regional dialects to speak of Kunvi, Kudali, or North and South Arcot dialect, etc. is as tenuous as speaking of B and non-B. From the linguistic point of view it is more important and interesting to study linguistic variation in different social contexts rather than making static categorical statements about linguistic differences.

* I am thankful to Dr. E. Annamalai, Dr. & Mrs. M. S. Thirumalai, Dr. and Mrs. V. Gnanasundaram, Dr. R. Mahadevan, Shri. N. Ramaswami, Shri. G. Subbaiah, Dr. K. Rangan, and Shri. S. Rajaram, for giving me information on Tamil for this paper. My special thanks are due to Dr. A. K. Ramanujan, Dr. E. Annamalai and Dr. M. L. Apte who read an earlier draft and offered generous comments. Paper submitted to the VIII World Congress of Sociology, Toronto, to appear in the Proceedings also.

[This paper will be discussed in the forthcoming issue of *IJDL*. Ed.]

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THE GENERATION OF THE ALAPETAI FORMS IN EARLY TAMIL

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1. In the Cankam classics Tamil and in later-day poetic works, forms with *aḷapeṭai* or *puluta* are found side by side with the normal forms.¹ The descriptivists, who classified the nouns and verbs, have listed these forms without accounting them.

2. From the published indexes for *PuRanaanuuRu*² and *AkanaanuuRu*³ the *aḷapeṭai* forms collected have been classified under the following categories :

| | | | | |
|-----------|-----|---------|-----------|-------------------|
| (1) Nouns | (a) | cuRavu | cuRāa | ‘shark’ |
| | | kuṟuvi | kuṟīi | ‘a bird’ |
| | | maruvu | marūu | ‘having stayed’ |
| | | iRavu | iRāa | ‘prawn’ |
| | (b) | āy | āay | ‘name of a king’ |
| | | vaṭātu | vaṭāatu | ‘north’ |
| ātu | | āatu | ‘that-it’ | |
| (2) Verbs | (a) | aRintu | aRīi | ‘having known’ |
| | | tantu | tarīi | ‘having given’ |
| | | eḷuntu | eḷīi | ‘having risen’ |
| | | uṇṭu | uṇīi | ‘having eaten’ |
| | | cenRu | celīi | ‘having gone’ |
| | | ulutu | ulūu | ‘having ploughed’ |
| | | nakku | nakūu | ‘having laughed’ |
| | | kaḷuvi | kaḷīi | ‘having washed’ |
| | | taḷuvi | taḷīi | ‘having embraced’ |
| | | maruvi | marīi | ‘having stayed’ |
| | (b) | uṇṭu | uṇṇāa | ‘having eaten’ |
| | | koṭuttu | koṭāa | ‘having given’ |
| | | katuvi | katūu | ‘having grasped’ |

3. In nouns, the *aḷapeṭai* forms function as nominative and oblique bases. As verbs, they function as finite verbs, verbal participles, gerunds, relative participles, negative relative participles, optative, etc.

4. In the *aḷapeṭai* forms the long vowels will be further lengthened by the homorganic short vowels; \bar{a} by a, \bar{i} by i, \bar{e} by e, ai by i and au by u. The minimum length of an *aḷapeṭai* will be by a single short vowel after the long vowel. The maximum length is determined by the length of the foot of the stanza and the poet's intent to lengthen the form.

In a few cases, a short vowel is lengthened by a long vowel: for instance, $a\bar{a}$. The consonants in a word can also be lengthened in the medial and final positions.

5. In Sandhi, the vowels will take either the glide, y or v according to the nature of the first vowel. i, \bar{i} , e, \bar{e} and ai before a vowel will take the y glide. a, \bar{a} , o, \bar{o} , u, \bar{u} and au will take the v glide. This rule is strictly observed in the external, as well as in the internal sandhi. In short, vowel clusters are not possible in Tamil, though consonant clusters are frequent. Vowel clusters are permissible without the glides y or v in vowel *aḷapeṭai*. This is a characteristic which marks out the *aḷapeṭai* forms, from the normal forms.

6. The forms *cuRavu* and *iRavu* have *avu* endings in the normal forms: in *aḷapeṭai*, they become $\bar{a}a$. A few posited rules will generate the *aḷapeṭai* forms from the normal forms.

- I. (a) (1) $V_1 C V_2 > V_1 V_2 C$ (metathesis)⁴
 (2) $V_1 V_2 C > V_1 V_2$ (loss of final consonant)
 (3) $V_1 V_2 > V_1 V_1 (\bar{V}_1)$ (progressive assimilation and rewrite as a long vowel)
 (4) $\bar{V}_1 + V_1 > \bar{V}_1 V_1$ (addition of the homorganic short vowel)

By applying these rules to *cuRavu* and *iRavu* the forms generated will be—

- I. (b) (1) *cuRavu* > *cuRauv* *iRavu* > *iRauv*
 (2) *cuRauv* > *cuRau* *iRauv* > *iRau*
 (3) *cuRau* > *cuRā* *iRau* > *iRā*
 (4) *cuRā + a* > *cuRāa* *iRā + a* > *iRāa*

In forms like *kaḷuvi* 'having washed', *maruvi* 'having stayed', a further restriction of rule (3) is necessary. The *u* is regressively assimilated by the succeeding vowel, which is the opposite process found in other vowels. The restated rule should now read (3) (a) if V_1 is any other vowel except *u*, V_2 will be progressively assimilated as V_1 V_1 (3) (b). If V_1 is *u*, V_2 will regressively assimilate *u* into V_2 V_2 : now *kaḷuvi* will be—

- [illegible]

Similarly, from the form aRiyi, when the aḷapeṭai form aRīi is generated, the following rules will be needed:

- II. (b) (1) aRiyi aRiiy (1) (metathesis)
 (2) aRiiy aRīi (2) (loss of the final consonant)
 (3) aRii aRī (3) (rewrite ii as ī)
 (4) aRī aRīi (4) (addition of the homorganic
 short vowel)

When V_1 and V_2 are identical the rule of progressive assimilation will be unnecessary. But that part of rewriting the two short vowels into a long one will be needed. $V_1 V_1 > \bar{V}_1$, e.g. $ii > \bar{i}$. Now the rule of assimilation is to be converted into an optional rule applicable if the vowels are dissimilar. (The case of u is treated in a sub-rule). With similar vowels it has to be converted into a rewrite rule of length. Restated, the rule will be II (a) if dissimilar then assimilation. If similar then rewrite it as a long vowel.

When the form pukaii is generated from pukaiyi a slight change in rule 3 is necessary.

- (1) pukaiyi > pukaiiy
- (2) pukaiiy > pukaii
- (3) pukaii > pukaii
- (4) pukaii > pukaii

When the diphthong ai or au is followed by the homorganic vowel i or u, neither the optional rule of assimilation nor the rewrite rule is necessary. The rule of addition of a homorganic short vowel also, is unnecessary because already the long vowel (here the diphthong) is followed by the homorganic short vowel, which is the minimum requirement for the *alapetai*.

Now the modified rule will be II (d) if the base form has a diphthong ai or au; neither rule 4 nor rule 5 is necessary. The resultant form after supplying rule 2 is the aḷapeṭai form.

The modified rules which can generate the aḷapeṭai forms are—

- (1) metathesis
- (2) loss of the final consonant
- (3) (a) if V_1 is any other vowel except u, V_2 will be progressively assimilated as $V_1 V_1$
- (b) if V_1 is u, then V_2 will regressively assimilate u into $V_2 V_2$
- (c) if similar vowels $V_1 V_2$ has to be rewritten as a single long vowel: \bar{V}_1
- (d) if a diphthong ai or au is followed by the homorganic i or u the resultant form is aḷapeṭai

(4) add the homorganic short vowel to the long vowel if they are monothongs ($\bar{V}_1 + V_1 > \bar{V}_1 V_1$).

Another rule required for all categories of forms will be the addition of the homorganic short vowels to achieve the designed length in aḷapeṭai. An aḷapeṭai will have in the minimum three maatra: the long vowel is counted as two maatra and the short vowel as one maatra. By adding another short vowel a four maatra aḷapeṭai can be generated. Similarly by adding more short vowels one can generate an aḷapeṭai of any desired length. The rule now will be (5), Add the required number of homorganic short vowels to generate the aḷapeṭai of desired length (each short vowel is of one maatra duration).

7. The aḷapeṭai forms katuu and kaṭaiyuu will require as base forms, katuvi and kaṭaiyuvu. The rules will recover these two base forms, though they are not attested in literature. Tolkaappiyam mentions-upu as a verbal participial ending which is very near to the recovered form: katuvu, kaṭaiyuvu (katupu (> katuvupu), kaṭaiyupu). The change of p > v in the intervocalic position is a normal change attested in the future markers. Therefore the posited base forms in this set are not unnatural.

For the forms uṇṇāa, koḷāa the recovered form will be uṇṇuva koḷḷuva: possibly from uṇṇupa, koḷḷupa which are not attested as verbal participle forms. But the strength of the rule will justify the position of those forms.

- | | |
|--------------|--------------|
| (1) uṇṇuva | uṇṇauv |
| (2) uṇṇuav | uṇṇua |
| (3) uṇṇua | uṇṇaa (uṇṇā) |
| (4) uṇṇā + a | uṇṇāa |

Just as in the verbs, a few more posited forms are necessary in the nouns also. The aḷapeṭai form makāar 'children' needs *makavar. The form makavu, found in the ancient classics will attest the recovered form. The distant demonstrative atūu needs *atuvu and the forms makaṭūu 'woman', āṭūu 'man' from makaṭuvu and āṭuvu. While the distant demonstrative 'atuvu' is a possibility, only the strength of the rule has to justify the positation of the latter two forms.

The present form uṇṇāaninRaān 'is eating' needs uṇṇuva ninRaān which, as mentioned earlier, is not attested. uṇṇūu ninRaān 'is eating' can be derived from the attested form uṇṇupu ninRaān. In the noun forms āay 'a king's name', vaṭaatu 'in the north', the long vowel is further lengthened as a stylistic feature, by applying the rule $\bar{V}_1 V_1 - V_{1n} > \bar{V}_1 V_1 V_{1n}$. All consonant aḷapeṭais can be generated by this rule.

Thus aḷapeṭai are of two types: (1) those derived from base forms through the rules of metathesis, loss of final consonant, optional rule of progressive and regressive assimilations and lengthening of the long vowel by the addition of the homorganic short vowels and (2) by simply lengthening the long vowel by the addition of the homorganic short vowels.

8. The rules, thus set up, besides accounting for the generation of the aḷapeṭai forms, throw additional light on the hidden structure of Tamil.

8.1 Metathesis commonly found in Telugu, Kui, Badaga Toda, and in Brahui⁴, is found in Tamil also. Even in other clear cases, the availability of metathesis as in suffix ana > aan, e.g. vantanan > vantaan 'came he' has been indicated. Compare also nim 'you pl.', min 'pl. optative suffix'.

(2) If the radical vowel is u, the suffixal vowel regressively assimilates the radical vowel which is contrary to the view held so far, that the radical vowel is preserved in the Dravidian verbs.⁵ Also nakuvu > nakuu indicates that the metathesis and vowel lengthening are not conditioned by liquids or spirants.⁵

(3) In the verbs those which take-in—as the past tense maker—are of the type (C) VC VC V in the pre-aḷapeṭai form and (C) VC VC in the normal form. Those which take nt, ṭ, k, i are of the (C) VCV or (C) VC type.

(4) The pre-aḷapeṭai base aRiyi, tariyi uḷuvi⁶ are similar to the later-day causative base in Tamil with-vi-and in Malayalam with-yi-. The verb bases ending with nt, ṭ, k, R, etc. are non-causative. The transitive / causative meaning attributed to aḷapeṭai forms may be due to this factor.

(5) The diphthong ai in aḷapeṭai takes the homorganic short vowel i; so also au takes u. If ai is interpreted as ay the rule will be violated. The vowel cluster interpretation of a + i will also violate the rule because a + i will become aa > ā according to the progressive assimilation rule (3) (a)

(6) The glide sandhi of vowels is the earlier form, and the glide-less vowel sandhi is the later one.⁷

(7) The past marker -in- had a wider distribution and had a stem pattern of CVCVCV. The other past-marker nt, ṭ, R, k, etc. are later derivations.

(8) That Cankam language represents at least two different dialect formations, one without aḷapeṭai and another with aḷapeṭai. The heterogeneity of the language is now attested additionally by the aḷapeṭai forms.

FOOT NOTES

- (1) An earlier version was published in Tamil, in *Vancinaatu Onam malar*, 1973, pp. 3-4 and 83. The present version, much improved, was presented in the IV Annual Conference of Dravidian Linguists. 1974, Madras.
- (2) V. I. Subramoniam, *Index of PuRanaaanuuRu*, University of Kerala, 1963.
- (3) S. V. Subramaniam, *Grammar of AkanaanunRu*, University of Kerala, 1972.

- (4) Metathesis was noticed for Telugu by K. V. Subbayya 'A primer of Dravidian phonology', *Indian Antiquary*, XXXVIII (1909). Bh. Krishnamurti, 'The History of vowel length in Telugu verbal bases' of *J. A. O. S.*, 75 No. 4, 1955, p. 246, and V. I. Subramoniam, *Tamil verbs classification*, in MS.
- (5) Bh. Krishnamurti, ('The History of vowel-length in Telugu verbal bases') of *J. A. O. S.*, 75 No. 4, 1955, p. 245.
- (6) nakuvu is an exception unless uvu like uvi was declared as a causative. There is no clear corroboration for this.
- (7) T. P. Meenakshisundaram states that the glide-less form is earlier than the glide form: *Foreign Models in Tamil Grammar*, Publication 15, DLA, Department of Linguistics, University of Kerala, 1974.

INDUCTIVE LOGIC AND LINGUISTIC EXPLANATIONS

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Abstract

*In 1957 Noam Chomsky's¹ 119 pp. monograph **Syntactic Structures** initiated a revolution in linguistics by causing linguists (a) to think of a grammar of a language L not as a redundancy-free catalogue of the elements in L but as a mathematical model (based on recursive sets of rules) which leads (via deduction) to specific claims about L which can be tested against observations (via induction), and (b) to think of induction as a process of testing freely invented theories and not as a set of operational procedures for discovering theories. The transformational generative grammar (TGG) in Figure (8), which generates abstract sentence functions (syntactic structures) that are related to observable sentence properties by phonologic and semantic functional operators (Figure 11), illustrates Chomsky's idea of a grammar as a recursive set of rules. The role of deduction and induction in justifying a grammar is illustrated using discontinuous constituent, affix, and passive constructions. Chomsky offered a TGG perspective to replace the dominant taxonomic grammar (TAX G) perspective. The resulting changes in theory and method 'resulting' 'which followed' what might be offered as a general pattern of scientific revolution.*

Introduction

In the TAX G view, and in particular that of Structural Linguistics,²⁻⁴ a grammar of a language is considered to be a catalogue of the elements that function in a language together with their restrictions on distribution. As Lamb² mentions (TABLE 1), linguistic research is viewed as a factoring of redundancies from a given set of sentences (a corpus). In this view, there exists a

certain set of procedures and operations with which the scientist operates on the data to discover a theory to characterize the phenomena under investigation. The grammar, or redundancy-free catalogue, is derived from the corpus by what might be called inductive procedures, or a discovery procedure. If the discovery procedure is followed faithfully, then the investigator will arrive at an empirically motivated theory to describe the phenomena under consideration. The empirical motivation for accepting (or rejecting) a theory stems from the data which give rise to the theory, i.e. the data which played a role in its discovery. In the TAX G view, the discovery of a theory and the justification of a theory are a single process; discovery and justification cannot be distinguished. In Harris' TAX G view,³ taxonomic transformations (quite different from the generative transformations discussed below) express inductive generalizations about sentences in a corpus. Each way to factor inductive generalizations about sentences is useful for a particular purpose. It is senseless to choose between alternative grammars since no one redundancy-free catalogue is superior to any other. The taxonomic analysis of a language is, according to Harris³ (TABLE 2), all of the possible inductive generalizations taken simultaneously, the various ways to factor the corpus, all equivalent, complementing each other.

In short, taxonomic linguistics developed quite in conformity with the philosophy of science developed by F. Bacon⁵: '...my way of discovering sciences goes far to level men's wits, and leaves but little to individual excellence, because it performs everything by the surest rules and demonstrations'. TAX G research is dedicated to formulating these surest rules and demonstrations, i.e. a set of inductive canons like J. S. Mill's, which can factor a grammar from a fixed corpus of data.

In the TGG view, Chomsky^{1,6} argues that a grammar is a freely invented mathematical theory of a language. There does not exist a set of procedures and operations with which the linguist operates on the data to discover a theory to describe the phenomena under investigation. A theory is an invention of the human imagination. A theory is a conjecture, which can be formulated in mathematical terms to comprise a deductive system, which is tentatively advanced as a possible description, or explanation of the phenomena under investigation. See TABLE 1. The means by which a theory is arrived at are irrelevant in determining its empirical adequacy. The theory derives its total empirical motivation from the comparison of the consequences deduced from the theory with

observable phenomena. In this view, the invention of a theory and the justification of a theory are two distinct processes. See TABLE 2. The TGG view is compatible with the philosophy of science discussed by Einstein,^{7,8} Northrop⁹, Holton,¹⁰ and Peirce¹¹. See TABLE 3.

Chomsky's main theoretical innovation in *Syntactic Structures*¹ was to utilize algebraic tools (see below) to formalize the mechanical principles of sentence construction into a theory (a grammar) from which one can deduce consequences (the sentences generated) which can be verified or refuted in comparison with observable data (the informant's responses). The rules which comprise the grammar are recursive rules. The concepts associated with recursive sets of rules, recursive elements, etc,—the concepts which are the backbone and muscle of Chomsky's linguistic theory—were developed formally as recursive function theory, a branch of mathematics, in the 1930's by such mathematicians as Post.

Generative Grammars : Mathematical Models of Language Structure

Chomsky¹ defines a *language* to be a set (finite or infinite) of sentences. A *sentence* (S) is a sequence (or string) of elements which is finite in length and constructed out of a finite set of elements. All natural languages in their spoken or written form are languages in this sense, since each natural language has a finite number of different sounds (phonemes) or letters in its alphabet, and each sentence is representable as a finite sequence of these sounds or letters, though there are infinitely many sentences. The fundamental aim in the linguistic analysis of a language L is to separate the grammatical sequences from the ungrammatical sequences, which are not sentences of L, and to study the structure of the grammatical sequences. The *grammar* (G) of a language L is a device which generates all of the grammatical sequences of L and none of the ungrammatical ones. The technical terms *language*, *sentence*, and *grammar* can be illustrated by discussing a simple non-human language : Jerman.

The sentences of Jerman are strings composed of the elements X, Y. FIGURE 1 presents three alternative grammars which will generate X-Y sequences. The symbol S is the initial symbol in the derivation of a sentence. In a rule like $A \rightarrow B$, the arrow means that the symbol in the left is to be rewritten as the set of symbols on the right. A rule containing an arrow is a Phrase Structure (PS) rule. Sentences, i.e. strings of X-Y, are generated by starting with the initial symbol S and rewriting the symbols by the rules—as in FIGURE 2.

A grammar as defined above is somewhat redundantly called a generative grammar (GG). A GG defines the notion grammatical sentence: The strings generated by GG are grammatical sentences, those not generated by GG are ungrammatical. Ungrammatical sentences are prefaced in the text with an asterisk (*). Different sets of rules will offer different definitions of grammatical sentence. G_1 , G_2 , and G_3 generate different sets of sentences, and thereby offer different definitions of *grammatical in German*. TABLE 4 lists the claims about grammaticality of G_1 , G_2 , and G_3 .

A recursive set of rules, i. e. a set of rules containing a recursive element, will generate an infinite number of sentences. An element Q is a *recursive element* if strings which contain Q can be derived from Q . In G_1 , G_2 , and G_3 , both X and Y are recursive elements. In a grammar like this ($S \rightarrow X$, $X \rightarrow YX$), only X is a recursive element. The rules which generate the sentences of a human language will contain recursive elements because a human language contains an unbounded number of sentences. In any human language there is no largest sentence, one can always construct a larger sentence by adding some element.

The methodology of TGG is based on the procedure of hypothesis testing, i. e. the general method by which we compare alternative grammars with each other and with the data in order to select the grammar that provides the most explanatory insight into the principles of sentence construction.¹ The elements of hypothesis testing are deductive and inductive reasoning.¹¹

Deductive reasoning, by enabling us to determine what must be true if the theory is true, plays a crucial role in hypothesis testing. Given alternative grammars, we can determine via deductive reasoning, the claims of each grammar and determine where the grammars make different claims about the same range of data. If two grammars make identical claims about a given example (range of data), then that example will not play a role in choosing between the grammars. This is a *neutral example*. An example about which two grammars make different claims, and which provides substantive reason for selecting one grammar over another, is a *crucial example*. If we are designing an experiment to choose between G_1 and G_2 , then XY sentences would fall into the areas of crucial and neutral examples in FIGURE 3. Notice that which sentences are crucial examples will depend on the specific claims of the grammatical models being compared. The sentence X , which is crucial in choosing between G_1 and G_2 , is neutral in choosing

between G_1 and G_3 , while YY , crucial in choosing between G_1 and G_3 , is neutral in choosing between G_1 and G_2 .

An experiment is a question put to nature. Through experiment we compare our world of ideas with the world of phenomena. This general conception of experiment enables us to compare the methods, etc. of various sciences. Some sciences, like physics, chemistry, etc., offer a different particular definition of experiment than do other sciences, like astronomy, linguistics, etc. The place where an astronomer has his telescope is called an observatory, not a laboratory. The linguist, in comparing the predictions of his GG against the informant data in a way illustrated below, makes empirical observations which confirm or refute his theories, and thus, he is performing an experiment.

Deductive reasoning plays a crucial role in designing experiments to choose between theories, i.e. in formalizing questions to choose between grammars. Given generative grammars like G_1 and G_2 , the linguist can, by using deductive reasoning, deduce what evidence would choose between them, and further, he would know exactly how and why that evidence was relevant before performing the experiment or making any observations.

Since Jerman has no speakers, there are no empirical questions associated with Jerman, only logical ones. However, the choice between the X - Y grammars might be made an empirical question if, instead of X - Y , the symbols \emptyset -1 were used. One might attempt to design sets of PS rules, like G_4 in FIGURE 4, to generate specific sequences of \emptyset -1, i. e. binary numbers. It would be an empirical question if the GG did or did not generate the set of binary numbers that one considered to be the language under consideration. This would be a 'syntactic' way of defining number sets. Normally, sets of numbers are defined by formulae like these: $N=2N+7$, $N=5N^2$, etc. This latter is a 'semantic' definition of number sets since it utilizes the fact that the numbers have specific meaning relations (amount) with respect to each other. Attempts to specify the prime numbers by 'semantic' rules have not succeeded. Perhaps one might be able to specify the set of primes by using 'syntactic' rules, i. e. by considering the primes to be a specific set of sentences constructed from the symbols \emptyset -1. The primes is one specific \emptyset -1 language; the perfect numbers constitute another \emptyset -1 language; etc. G_5 in FIGURE 4 generates the first seven prime numbers: 1, 11, 1 \emptyset 1, 111, 1 \emptyset 11, 11 \emptyset 1.

Inductive reasoning is the experimental testing of a theory, the process of measuring the degree of concordance of the experimental claims deduced from a model, i. e. a GG, with the observational data. Induction determines where the confrontations between the theory and observational reality occur and indicates the precise interrelations of the theory and observations at these confrontations. Via deductive reasoning, we can determine that G_5 will generate an infinite number of sentences, including this sentence $1\emptyset 1$, but not this sentence $1\emptyset 1\emptyset$. Via inductive reasoning, we determine that G_5 will not generate only sentences of the prime language because $1\emptyset\emptyset 1$ (nine), a non-prime, is generated. G_5 does generate all the primes. In fact, G_5 generates all and only the odd numbers.

These simple examples illustrate the general method of hypothesis testing in linguistic research. The principles (deductive reasoning) by which we determine crucial examples between G_1 and G_2 in German are essentially the same principles by which we determine crucial examples between two alternative grammars of English. The principles (inductive reasoning) by which we determine whether the \emptyset -1 sentences generated by G_5 are all and only the prime numbers are essentially the same principles by which we determine if a proposed grammar of English generates all and only the grammatical sentences of English. These examples illustrate the general ideas sketched by Chomsky^{1, 6} and summarized in TABLES 1, 2, & 3.

One might summarize TGG research on language as in FIGURE 5. The term abductive reasoning, which essentially means the heuristic processes by which a scientist invents a theory, is taken from C. S. Peirce.¹¹ FIGURE 5, compatible with the ideas offered by Northrop⁹ and Chomsky,^{1, 6} represents the view of science of C. S. Peirce.¹¹

Transformational Generative Grammar: A Theory of Human Language

A main stimulus to theory construction in linguistics derives from the fact that a speaker of a particular language, e.g. English, German, Tagalog, etc., recognizes the well-formed sentences of his language. A native speaker will be called an *informant*. An informant's intuitions about grammaticality comprise a part of the observations, the raw data, upon which linguistic research is based. The term *grammar* is used with a systematic ambiguity to refer both to the internalized competence of an informant and to the linguist's model of this competence.

A sentence of a human language is not simply a sequence of elements, it is a structured sequence of elements. A *constituent* is a continuous sequence of elements in a sentence. A sentence is composed of a hierarchy of constituents, i. e. at one level a sentence is a sequence of words, at another level it is a sequence of phrases, etc. One way to represent this structural information about a sentence, i. e. the *constituent structure* of a S, is in a phrase marker (PM). A PM expresses that (a) a sentence is composed of constituents, (b) the constituents are in a hierarchy, and (c) there are similarities and differences between the constituents, as indicated by the labels (NP = noun phrase, V = verb, etc.). FIGURE 6 presents a PM, PM (B), which represents structural information about the sentence *The man will look up the girl*.

A set of PS rules generates a set of PM's. Referring to FIGURE 6, the set of rules, G_A , will generate PM (A) - PM (É). A recursive set of PS rules, like G_A , generates an infinite number of PM's, each of which corresponds to a particular sentence. It is of course an empirical question if the sentences generated are in conformity with the intuitions of an informant. By generating the ill-formed sentence **The man will look up the girl up*, G_A makes the incorrect claim that the sentence is grammatical.

A transformational rule (T rule) operates on a PM and converts it into a different PM by adding, deleting, or rearranging constituents. A T rule is defined by its structural analysis (SA), i. e. the constituent structure of the PM's to which it applies, and its structural change (SC), i. e. the change in constituent structure which it affects. A T rule is an algebraic rule in that the SA and SC must meet certain Boolean conditions on analysability.^{1, 6} A T rule can operate on a PM generated by a set of PS rules and convert it into a new PM which could not be generated by the PS rules. Referring to FIGURE 7, the question transformation (T_Q) converts PM (I) into PM (II). The particle movement transformation (T_{PRT}) converts PM (III) into PM (IV).

A PM generated by PS rules is a *base* (or deep structure (DS)) PM. A PM which is the output of a T rule is a *derived* PM. A T rule can apply to either a base or a derived PM. Referring to FIGURE 7, T_Q can apply to PM (I), which is generated by the PS rules, and also to PM (IV), which is the derived PM produced by T_{PRT} .

Chomsky^{1, 6} showed that if our goal is to generate all and only the sentences of English, then a GG containing both PS and T rules, i. e. a TGG (FIGURE 8), is superior to a GG containing

only PS rules, i.e. a PS grammar (PSG). Some of his evidence concerned discontinuous constituents.

A *discontinuous constituent*, e.g. *look...up* in the sentence *John will look Mary up*, is composed of two constituents which function in language as a single constituent but which are separated by an intervening constituent. Although *look...up* occurs dissociated into discontinuous parts, it functions as a single constituent at one level of analysis in that *look up* would be a single dictionary entry, and in discussing the meaning of the sentence *John will look Mary up*, we would talk of the meaning of *look up*, not of the meaning of *look* and *up*. In the TGG in FIGURE 8, the base component, essentially a PSG, would generate a PM with the order of constituents *John will look up Mary*. T_{PRT} would convert this into *John will look Mary up*. In TGG terms, the element *look up* is a single constituent in the deep structure PM (DSPM), but a discontinuous constituent in the surface form of the sentence.

In choosing between the PSG, G_A in FIGURE 6, and the TGG in FIGURE 8, the sentence **The man will look up the girl up* is a crucial example. G_A generates PM (E) in FIGURE 6 thereby claiming incorrectly that the sentence is grammatical. The TGG will not generate this string, thereby making the correct empirical claim that the sentence is ill-formed. In general, discontinuous constituents pose problems for PSG's, but are readily describable by TGG's. A PSG which attempts to generate all sentences containing discontinuous constituents will not generate only sentences: and if it generates only sentences, it will not generate all the sentences. In a TGG analysis, a sentence containing a discontinuous constituent $X...Y$ is a derived form that is, produced by a T rule which reorders the elements in a base form in which the elements X, Y constitute a single constituent.

A second argument for TGG involves the passive construction. Chomsky¹ showed that a GG which generates both active sentences (e.g. *Bill will see Mary*) and passive sentences (e. g. *Mary will be seen by Bill*) by PS rules is inferior to a TGG which generates the active sentences by PS rules and transformationally derives the passive form from the active form by a passive transformation (T_{PASS}). See PM (1) and PM (2) in FIGURE 9. In other words, Chomsky showed that active sentences were essentially base forms, while passive sentences were transformationally derived forms. Chomsky's discussion of discontinuous constituents and the active/passive relation can be considered examples of what has come to be called the balance of power problem.

The balance of power problem, at the core of TGG research, is to decide which sentences are base forms, i. e. which sentences correspond essentially to the PM's generated by the PS rules, and which sentences are transformationally derived forms, i. e. which sentences are derived from base forms and assigned derived PM's by optional T rules.¹⁻⁶ The basic idea is essentially that the sentences of a language are of two types: (a) *base (or deep structure) forms*: There are a set of base sentence types which correspond to the base PM's generated by PS rules. (b) *derived forms*: There are a set of derived sentence types which are derived from the base sentence types by optional T rules which rearrange the constituents in the base form sentences.

Optional T rules can apply to base forms and to the output of other optional T rules. With one optional T rule, a grammar will generate two sentences from one base form. With 2, 3, . . . , 10, . . . optional T rules, a grammar could conceivably generate 4, 8, . . . 1028, . . . derived forms from one base form. For example, given the base form *John will look up Mary* and the two optional T rules, T_Q and T_{PRT}, the TGG generates the four sentences: *John will look up Mary*, *John will look Mary up*, *Will John look up Mary?* and *Will John look Mary up?* In the TGG theory, the myriad syntactic patterns found in the sentences of a language will be described by a small number of T rules, each one simple in itself, which can rearrange constituents in derived and base PM's. The total complexity of a given sentence can be attributed to many simple transformational operations (permutation, deletion, etc.) performed on a simple base PM.

The programme of research defined by Chomsky¹⁻⁶ focuses on the balance of power problem and never considers the question of how one might have arrived at the grammars (i.e. the specific sets of PS and T rules) which are being considered. See TABLE 1. The question of the invention of theories (abduction) is an interesting question, but one about which, little can be said. In each case where we compare alternative grammars, our sole concern is to decrease the complexity of the grammar by showing that the proposed analysis is simpler than the rejected alternatives. See TABLE 2. In TGG research, the focus is on the justification of grammars, not on the discovery of grammars.

Chomsky's revolutionary monograph was called *Syntactic Structures*.¹ We can best approach the idea of a syntactic structure by recognizing that two types of T rules exist: optional and obligatory. An *optional* T rule may or may not apply to a PM which meets its structural analysis; in either case, a grammatical

sentence is generated. T_Q and T_{PRT} are optional. In FIGURE 7, if T_{PRT} applies to PM (III), the sentence *John will look Mary up* with PM (IV) is generated; if not, the sentence *John will look up Mary* results. If T_Q applies to PM (I), *Will John see Mary?* is generated; if not, *John will see Mary* is produced. An obligatory T rule must apply to a PM if that PM meets its structural description. The affix movement transformation (T_{AFF}), which accounts among other things for the agreement in person and number between the subject and verb of a sentence, must apply in the derivation of every sentence of English since in every well formed sentence, the subject and verb agree in person and number.

T_{AFF} plays a role in generating sentences containing the discontinuous constituents *have...en/ed* and *be...ing*, the perfective element and the progressive element respectively, e.g. *John will be looking*, and *John will have eaten*. Notice that progressive *be* goes with *ing*, not *en/ed*; and perfective *have* goes with *en/ed*, not *ing*: **John will have eating*, and **John will be looked*. (For simplicity we ignore here passive *be...en*, as in *John will be eaten by cannibals*—see FIGURE 9.) The PS rules generate base PM's with the order of constituents *John will be+ing look* and *John will have+en eat*, where the + indicates that the elements *have+en* and *be+ing* are single constituents. T_{AFF} obligatorily applies to these strings to move the *ing* and *en*, the affixes (AFF), over the element to the right to yield: *John will be look+ing* and *John will have eat+en*. See FIGURE 9. A morphological, or word formation, rule converts *look+ing* to *looking* and *eat+en* to *eaten*. T_{AFF} could be stated: $SA: AFF\ v$, $SC: v\ AFF$, where $AFF=en/ed/ing/SG/PL$ and $V=M, Vb, have, be$. Suppose the PS rules generate a PM with this order of constituents: *John will have+en be+ing eat*. T_{AFF} applies to this base form and yields this order of elements: *John will have be+en eat+ing*. If one were to consider the passive *be...en*, then the input to T_{AFF} could be: *The Blarney Stone will have+en be+ing be+en kiss....* and T_{AFF} would convert this to: *The Blarney Stone will have be+en be+ing kiss+ed...*

The process of subject-verb agreement, exemplified by these data: *John looks ill*, **John look ill*, **They looks ill*, and *They look ill*, can be regarded as a construction involving a discontinuous constituent. Suppose an affix (SG, PL representing singular, plural respectively) were affixed to nouns in the base PM. PS rules would generate: *He+SG look ill* and *They+PL look ill*. T_{AFF} would apply to yield *He look+SG ill* and *They look+PL ill*. A morphological rule changes *look+SG* to *looks* and *look+PL* to

look, thereby generating *He looks ill* and *They look ill*. See FIGURE 9. The PS rules generate the deep structure form *He+SG have+en be+ing*. T_{AFF} converts this to *He have+SG be+en eat+ing*. Morphological rules, including the rule *have + SG* becomes *has*, convert this to *He has been eating*.

By incorporating the obligatory T_{AFF} into the grammar we claim that every sentence of the language will have at least two PM's associated with it: (a) a base PM, or deep structure PM (DSPM), in which the subject bears an affix SG PL and the verb is unmarked for subject agreement, and (b) a derived PM in which T_{AFF} has obligatorily moved the SG PL affix to affect subject-verb agreement. The last PM output by the transformations is called the surface structure PM (SSPM). Owing to T_{AFF} , and other obligatory transformations, the order of constituents in the DSPM is never the same as that in the SSPM of a sentence. A sentence, S_x , has associated with it a $SSPM_x$ and a $DSPM_x$, and $SSPM_x$ is *never* identical with $DSPM_x$.

The syntactic structure (Σ) of a sentence S_x is the PM or set of PM's assigned to S_x by the rules which generate S_x . In a PSG, the Σ of a sentence is always a single PM. In a TGG, the Σ of a sentence is always two or more PM's, i.e. a DSPM and a SSPM plus any intermediate derived PM's.

The general form of a TGG which generates an infinite number of Σ 's is shown in FIGURE 10.

A Σ can be considered a sentence function, or the state function of a sentence. Each sentence of a human language is totally defined by its Σ . The Σ 's generated by the PS and T rules of a language are purely formal abstract objects corresponding to the abstract syntactic patterns which exist in human language. To consider an analogy, the syntactic patterns in language are like the patterned cuts of a jigsaw puzzle. A jigsaw puzzle has two types of information aiding in its assembly: the irregularly shaped interlocking pieces which fit together in some ways but not in others, and the picture printed on its surface. Both types of information are used in assembling the puzzle. One type of information, the picture, is meaningful, it provides 'semantic' information. The other type, the particular shapes of the pieces, is structural information, or 'syntactic' information. In assembling the puzzle, the particular contours of any piece and how it fits with the other pieces, i.e. the syntactic information, is at least as important as the fragment of the picture printed on it. In fact, in assembling the puzzle, we might well rely

more heavily on the seemingly arbitrary, but well defined, 'syntactic' patterns. It is more important to have a piece mesh perfectly with its neighbors even if it looks out of place than to have a piece which may look right but whose contours are incompatible with the position to be filled. The syntactic patterns in language, as the cuts in the puzzle, may seem arbitrary, but they comprise a set of fixed, well-defined constraints which impose a certain structure on the system.

The Σ is not directly observable. Operations performed on Σ 's yield observable properties of sentences, in particular, phonologic and semantic observables.^{1, 6, 14} See FIGURE 11. Phonologic observables, i.e. observable sound properties of the sentence, would include: *stress contours*, *intonation patterns*, *rising-falling pitch levels*, *the order of words* (morphemes, phonemes, etc.), etc. In this paper, we have only considered the written form of sentences. The observable property has been the order of constituents in the SSPM. Semantic observables, i.e. observable properties of the meaning of sentences, include: *grammatical relations*: subject, object, etc.; *number of readings*: unambiguous, ambiguous, polysemous; *specific type of reading*: analytic, synthetic, contradiction, etc.; *paraphrase relations between sentences*; *properties of entailment*; *focus*; *presupposition*; *quantifier scope and relations*; *reference*: pronouns, anaphoric elements, etc. The italicized terms are observable properties of sentences determined by specific phonologic or semantic functions which operate on Σ or, in the case of some observables involving two or more sentences (e.g. paraphrase relations, synonymy, etc. between S_x and S_y), by correlation functions which operate on two or more Σ 's (e.g. observable = FUNCTION (Σ_x , Σ_y)). Many, if not all, of the observables are determined as a function of either the DSPM, the SSPM, or both the SSPM and the DSPM. In the cases studied to date, intermediate PM's in the Σ play little rôle in the phonologic and semantic functions. See FIGURE 11.

The study of functional operators (called interpretive phonologic or semantic rules because they 'interpret' the abstract Σ to yield observable properties) constitutes a main area of current research.^{1, 6, 15} Consider semantic observables. Some aspects of sentence meaning are determined by the order of words and their arrangement into phrases. For example, *I saw the old men and women* is semantically ambiguous, and this semantic ambiguity correlates with a structural ambiguity, i.e. there are two ways a GG can assign constituent structure to the phrase *old men and women*, e.g. :

$$\text{NP}(\text{NP}(\text{ADJ old})(\text{Nmen})) \text{ and } (\text{NPwomen})) \text{ and } (\text{NP}(\text{ADJ old})\text{NP}(\text{NPmen}) \text{ and } (\text{NPwomen})))$$

Other aspects of meaning correlate with more abstract structures, in particular, grammatical relations correlate with the DSPM. *John appeared to Bill to like himself* and *John appealed to Bill to like himself*, virtually identical in surface form, differ considerably in interpretation. In the former, *John likes himself*, but in the latter, *Bill likes himself*. Since the two sentences have virtually identical SSPM's, aspects of the SSPM do not seem to correlate with the perceived difference in grammatical relations. The DSPM of *John appeared to Bill to likē himself* would contain the base form *Bill to like himself*. The DSPM of *John appeared to Bill to like himself* would contain the base form *John likes himself*. T rules would delete and rearrange elements in the base forms to yield the correct surface strings. It is only at the level of deep structure that the semantically significant grammatical relations are directly expressed.

Considering phonologic observables, Chomsky and Halle^{1,6} show that certain facts about stress are predictable from properties of the SSPM. For example, *torment* is stressed on the first syllable as a noun and on the last syllable as a verb, e.g. let lack of italics means stress: *Thē torment was too great*, *It will torment him*, but *The torment was too great*, **It will for ment him*.

Many semantic and phonologic properties of sentences, previously thought to be idiomatic, i.e. not predictable by general rules, turn out to be predictable when derived by operator functions defined on the abstract sentence function Σ .^{1,6,14}

According to Chomsky,¹⁻⁶ syntax is the study of the principles and processes by which sentences are constructed in particular languages. Syntactic investigation of a given language has as its goal the construction of a grammar that can be viewed as a device of some sort for producing the sentences of the language under analysis. More generally, linguists must be concerned with the problems of determining the fundamental underlying properties of successful grammars. The ultimate outcome of these investigations should be a theory of linguistic structure in which the descriptive devices utilized in particular grammars are presented and studied abstractly, with no specific reference to particular languages.

It is conceivable that the study of the formal properties of language structure could be developed internal to the branch of mathematics known as recursive function theory. One might ask: What essential properties differentiate a human language from an arbitrary symbolic system. What possible combinations of recursive

sets of PS and T rules can underlie the syntactic patterns of human language? Notice that the transformations which are useful in generating sentences are not the simplest string operations one can imagine. Transformations do not perform simple string operations like inversion, mirror imaging, duplication, permutation of every other element, etc. Transformations are structure dependent operations that operate on a string according to its constituent structure.

The linguist engaged in the construction of a grammar is attempting to represent the unconscious mechanisms which enable an informant to distinguish an infinite number of well-formed sentences from an infinite number of ill-formed ones. We might say that the construction of a grammar is the mapping of an unconscious logic, a logic which differentiates the well-formed from the ill-formed sentences. We assume that this logic can be formally characterized by an explicit set of descriptive mechanisms and instructions for interpreting these mechanisms.

A GG characterizes an informant's knowledge of his language, his tacit competence to identify the grammatical sentences of his language. This grammar constitutes only one of the many factors governing his behavior. In specific acts of speech production or perception, an informant may produce and understand ungrammatical sentences either intentionally or by accident. In a way, language study is similar to the study of logic. A logician seeking to write a logic to characterize valid arguments as opposed to invalid arguments could not allow himself to be misled by the fact that people often use and accept invalid arguments both intentionally and through error.

Chomsky's system of TGG has definite implications for psychology.^{1,6,13,14} Linguists and psycholinguists studying child language acquisition have pointed out that the child is not a passive absorber of language. Language learning is an active process in which the child makes specific contributions, in particular the child acquires a grammar which identifies part of the data upon which it is based as deviant.¹³ A striking characteristic of the language acquisition situation is the fact that the particular linguistic ability that develops in the individual child as he gradually masters his native language is grossly underdetermined by the utterances he hears. Not only does he understand, produce, and recognize as perfectly normal countless sentences he has never heard, but he will recognize as deviant all the various slips of the tongue, false starts, interrupted completions, and noises that are present in our

everyday speech utterances. Given the external characteristics of language acquisition, the psycholinguist asks: How do any two children – to say nothing of those of a whole speech community – arrive at anywhere near the same language? How does a particular language – each time it is acquired by a child – keep from changing radically? Since language does not change radically in this situation, there must surely be some general principles at work, and it is the principles underlying language acquisition which we want eventually to illuminate.

According to Chomsky,^{2,6} TGG comprises part of a traditional science of psychological studies (cognitive psychology) which differs from existing stimulus-response type studies. Cognitive psychology would begin with the problem of characterizing various systems of human knowledge and belief, the concepts in terms of which they are organized, and the principles that underlie them, and only then turn to the study of how these systems might have developed through some combination of innate mental structure (neural patterning, learning strategies, etc.) and organism-environment interaction⁶. This general approach proved successful in physics, etc., and it can be applied to linguistic studies.

Induction : The Justification of an Invented Theory or the Discovery of a Catalogue

Several studies of scientific revolutions suggest that a field undergoes a scientific revolution (a) when scientists in that field begin to think of a theory not as a redundancy-free catalogue but as a mathematical model which leads (via deduction) to claims which can be tested against observation (via induction), and (b) when scientists begin to think of inductive reasoning as a process of testing invented theories and not as a set of operational procedures for discovering theories.⁷⁻¹² Three examples to support this position would be linguistics, astronomy,^{11,12} and physics.⁷⁻¹² For example, in physics, Einstein's idea of theory and his conception of induction (TABLE 3) contrast sharply with those of Mach. Einstein⁷ states: '...Mach's system studied the relationships which exist between the data of experience. For Mach, science is the sum total of these relationships. It is a bad point of view: in short, what Mach created was a catalogue and not a system.' Concerning induction, Einstein¹⁰ states: 'I see Mach's weakness in this, that he more or less believed science to consist in a mere ordering of empirical material: that is to say, he did not recognize the freely constructive element in formation of concepts. In a way he thought that theories arise through *discoveries* [emphasis in original, RCD] and not through inventions...'

Chomsky revolutionized language studies by contending (a) that a grammar is not simply a catalogue listing exceptions and regularities in a language but instead constitutes a theory of the principles of sentence construction in a language, and (b) that linguists should develop means to choose between freely invented TGG's and not devote their time to developing procedures to extract a grammar from a given corpus.^{1,6} In *Syntactic Structures* Chomsky offered an explicit set of recursive PS and T rules to generate sentences, and thereby showed that many facts about language in general and English in particular, previously thought to be idiomatic, were in fact predictable by general rules. Many of the ideas about theory and induction introduced into linguistics by Chomsky have long been familiar to physicists, chemists, etc.⁷⁻¹² In a humanities like linguistics, however, such ideas strike an unfamiliar chord. Insofar, as the ideas of TGG succeed, we may well consider linguistics to be the most scientific of the humanities, the most human of the sciences. Language, as much a manifestation of human psychological capacities as is any other aspect of behaviour, betrays, in its structures and regularities, patterns as fixed as those normally investigated by the physical scientist. Since these patterns can be represented by a formal mathematical model, linguistics may well serve as a keystone in the application of the sophisticated methods of the physical scientist to the study of the resources of the human mind.

FOOTNOTES

*I am indebted to Joan Bachenko, Noam Chomsky, David Halitsky, and Virginia Sterba for comments on this paper.

This work was initiated under an American Council of Learned Society grant to investigate the philosophy of C. S. Peirce. Research was supported by National Endowment for the Humanities grant RQ 7837-73-205. Some assistance came from a National Science Foundation Institution grant to N. Y. U.

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TABLE 1. Contrasting views of grammar. S. Lamb states the TAX G view that a grammar is a redundancy free catalogue factored from a corpus of data. Chomsky states the TGG view that a grammar is a theory of the principles of sentence construction in a language.

| | |
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| <p>S. Lamb² states the TAX G position as follows :</p> <p>"Linguistic analysis can perhaps best be understood as a process of simplifying. It is a process in which the analyst finds recurrences of similar entities having such relationships among themselves and with other entities that they can be regarded,</p> | <p>N Chomsky¹ states the TGG position as follows :</p> <p>"Our fundamental concern throughout this discussion of linguistic structure is the problem of justification of grammars. A grammar of the language L is essentially a theory of L. Any scientific theory is based on a finite number of observations,</p> |
|--|--|

at some level, as repetitions of one another. Once found, such recurrent entities may be extracted and described only once instead of repeatedly. This process amounts to a simplification, and it also involves generalization. The phenomena dealt with are then better understood and are better treated in whatever applications may be desired. Except for the various refinements which are necessary, there is little more to linguistic analysis, reduced to its essentials, than making observations similar to those of the student in ninth grade algebra to the effect that, e.g. :

$abc + abd + abe + abf + abg$
may be reduced to
 $ab(c + d + e + f + g)$.

The latter expression is simpler than the former and it contains a generalization not present in the former. It is simpler precisely by virtue of the fact that it expresses the generalization. The fact of the occurrence of *ab* in five separate combinations has been stated once instead of five separate times. What the algebra student does when he factors the first expression is not essentially different from what the linguist does when he determines that

blueberry, cranberry
can be reduced to

| | |
|-------|----------|
| blue— | —berry.” |
| cran— | |

and it seeks to relate the observed phenomena and to predict new phenomena by constructing general laws in terms of hypothetical constructs such as (in physics, for example) ‘mass’ and ‘electron’. Similarly, a grammar of English is based on a finite corpus of utterances (observations), and it will contain certain grammatical rules (laws) stated in terms of the particular phonemes, phrases, etc., of English (hypothetical constructs). These rules express structural relations among the sentences of the corpus and the indefinite number of sentences generated by the grammar beyond the corpus (predictions). Our problem is to develop and clarify the criteria for selecting the correct grammar for each language, that is, the correct theory of this language.”

TABLE 2. Two contrasting views of linguistic research. Harris states the TAX G view that, since there are many ways to factor redundancies from a corpus, research will yield many alternative analyses. As Harris points out, it is senseless to choose between these alternative analyses since no one redundancy-free catalogue is superior to any other; they must be regarded as different, but equivalent, ways of looking at the data. Chomsky presents the TGG view that a grammar is a theory of a language to be tentatively accepted until a better grammar can be found. TGG research, by continuously comparing the tentatively held grammar against newly devised grammars, leads to the perfecting of our ideas about the principles of sentence construction.

Z. Harris³ states the TAX G position as follows :

"...To interrelate [various grammatical analyses], it is necessary to understand that these are not competing theories, but rather complement each other in the description of sentences.⁶ It is not that grammar is one or another of these analyses, but that sentences exhibit simultaneously all of these properties.

⁶[Footnote] The pitting of one linguistic tool against another has in it something of the absolutist postwar temper of social institutions, but is not required by the character and range of these tools of analysis."

N. Chomsky¹ states the TGG position as follows :

"...In each case [where we have compared alternative grammars] our sole concern has been to decrease the complexity of the grammar, and we have tried to show that the proposed analysis is clearly simpler than the rejected alternatives. In some cases the grammar becomes simpler if we reject a certain transformation: in some cases reassignment of constituent structure is preferable...Making use of phrase structure rules and transformations, we are trying to construct a grammar of English that will be simpler than any proposed alternative: and we are giving no thought to how one might actually arrive at this grammar in some mechanical way from an English corpus, no matter how extensive."

TABLE 3. The view of science which regards a theory to be a free invention of the human imagination is held by Einstein,^{7,8} Northrop,⁹ Peirce,¹¹ and others. A theory is a conjecture, which can be formulated in mathematical terms to comprise a deductive system, which is tentatively advanced as a possible description, or explanation, of the phenomena under investigation. The theory derives its total empirical motivation from the comparison of the consequences deduced from the theory with observable phenomena. Northrop summarizes the view of Einstein.

F. Northrop⁹ states the view of the physicist as follows:

“The way from the empirical data to the postulates of deductively formulated physical science is a frightfully difficult one. Here, rather than anywhere else, the scientist’s genius exhibits itself. The way is so difficult that no methods whatever must be barred; no source of meaning whatever, imaginative, theoretical, of whatever kind, are to be excluded. It appears that nature covers up her basic secrets; she does not wear her heart upon her sleeve. Thus only by the freest play of the imagination, both the intuitive imagination and the non-intuitive, formal, theoretical imagination can the basic concepts and postulates of natural science be discovered. In fact, Einstein writes with respect to the discovery of ‘the principles which are to serve as the starting point...’ of the theoretical physicist’s deductive system, that ‘there is no method capable of being learnt and systematically

N. Chomsky¹ states the view of the linguist as follows:

“In short, we shall never consider the question of how one might have arrived at the grammar whose simplicity is being determined; e.g. how one might have discovered the analysis of the verb phrase presented [earlier]. Questions of this sort are not relevant to the programme of research that we have outlined above. One may arrive at a grammar by intuition, guesswork, all sorts of partial methodological hints, reliance on past experience, etc. It is no doubt possible to give an organized account of many useful procedures of analysis, but it is questionable whether these can be formulated rigorously, exhaustively and simply enough to qualify as a practical and mechanical discovery procedure. At any rate, this problem is not within the scope of our investigations here. Our ultimate aim is to provide an objective, non-intuitive way to evaluate a

| | |
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| <p>applied so that it leads to the goal.’</p> <p>...Einstein affirms that neither the formal, logical relation of implication or any probability or other formulation of induction can define the method by which the scientist goes from the empirical data to the basic postulates of scientific theory. The scientist has, by trial and error and the free play of his imagination, to hit upon the basic notions. Moreover, it has been noted that these basic notions receive their verification only through a long chain of deductive proofs of theorems which are correlated with the inductive data.</p> <p>With time and new empirical information the traditional basic postulates have to be rejected and replaced by new ones.”</p> | <p>grammar once presented, and to compare it with other proposed grammars. We are thus interested in describing the form of grammars (equivalently, the nature of linguistic structure) and investigating the empirical consequences of adopting a certain model for linguistic structure, rather than in showing how, in principle, one might have arrived at the grammar of a language.”</p> |
|--|--|

TABLE 4. Claims deduced from G_1 , G_2 , and G_3 in FIGURE 1. No. two grammars generate the same set of sentences; each grammar offers a unique definition of *grammatical sentence*. Ungrammatical sentences, i.e. those not generated by the grammar, are prefaced with an asterisk (*).

| Claims deduced
from G ₁ | | Claims deduced
from G ₂ | | Claims deduced
from G ₃ | |
|---------------------------------------|-------------|---------------------------------------|-------------|---------------------------------------|-------------|
| Grammat. | Un-grammat. | Grammat. | Un-grammat. | Grammat. | Un-grammat. |
| X | *Y | XY | *X | X | *Y |
| YX | *XX | XXX | *Y | YY | *YX |
| XYX | *XY | XYY | *YX | XXY | *XX |
| YYX | *YY | XXXY | *XYX | YXX | *XYX |
| XXYX | *XXY | XXYX | *YYX | XXXX | *YYXX |
| XYYX | *XYYX | XYXX | *XXXX | XYYY | *XYYX |
| YYYX | *XYXX | XYYY | *YYYY | YXYY | *XXX |
| ... | ... | ... | ... | ... | ... |

FIGURE 1. Three PS grammars to generate X-Y sentences. In the PS rule $A \rightarrow B$, the arrow is the instruction to rewrite the symbol A by the symbol (s) B. Each grammar offers a specific definition of grammatical sentence, see FIGURE 2 and TABLE 4. The rules of G₁ are labeled for reference in later discussion.

| Grammar ₁ , G ₁ | Grammar ₂ , G ₂ | Grammar ₃ , G ₃ |
|---------------------------------------|---------------------------------------|---------------------------------------|
| (a) $S \rightarrow X$ | $S \rightarrow X Y$ | $S \rightarrow X$ |
| (b) $X \rightarrow Y X$ | $X \rightarrow X Y$ | $X \rightarrow X Y$ |
| (c) $Y \rightarrow X Y$ | $Y \rightarrow X X$ | $Y \rightarrow X X$ |

FIGURE 2. The generation of sentences by G₁ in FIGURE 1. (I) Start with the initial symbol S and rewrite S by rule (a), generating the sentence X. (II) Start with S and apply rules (a) and (b), generating the sentence YX. (III) Rewrite S by rules (a), (b), and (c), generating XYX. (IV) Rewrite S by (a), (b) and (c), generating YYX. An unbounded number of sentences, some of which are listed in TABLE 4, can be generated thusly.

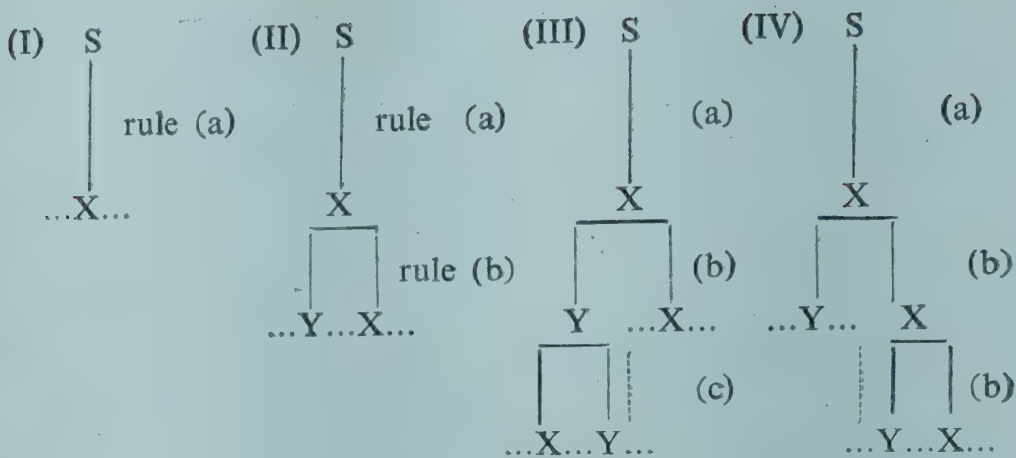


FIGURE 3. Areas of neutral (unshaded) and crucial (shaded) examples in choosing between G_1 and G_2 . The symbols $G_x = *$ and $G_x = OK$ mean that examples listed in these spaces are ill-formed or well-formed respectively, according to G_x .

| | shaded | unshaded | shaded |
|-----------|------------|------------|------------|
| $G_1 = *$ | $G_1 = OK$ | | $G_1 = *$ |
| $G_2 = *$ | | | |
| Y | $G_2 = *$ | | $G_2 = OK$ |
| XX | | | |
| YY | X | | XY |
| XXY | YX | | XXX |
| YXX | | $G_1 = OK$ | |
| YXY | XYX | $G_2 = OK$ | XYX |
| YYY | YYX | | XXXY |
| XXXX | | | |
| XXYY | XYYX | | XYXX |
| XYXY | YXYX | | XYYY |

FIGURE 4. Two grammars to generate sequences of \emptyset -1, i.e. sets of binary numbers.

| Grammar ₄ , G ₄ | Claims of Grammar ₄ | | Claims of Grammar ₅ | |
|---------------------------------------|---------------------------------|------------------------------|-----------------------------------|----------------------------------|
| | Grammat. | Ungrammat. | Grammat. | Ungrammat. |
| S → 1 \emptyset | | | | |
| 1 → 1 \emptyset | 1 \emptyset | * \emptyset | 1 | * \emptyset |
| \emptyset → 1 1 | 1 $\emptyset\emptyset$ | *1 | 11 | *1 \emptyset |
| | 111 | *11 | 1 \emptyset 1 | *11 \emptyset |
| | 1 $\emptyset\emptyset\emptyset$ | *1 \emptyset 1 | 111 | *1 $\emptyset\emptyset\emptyset$ |
| Grammar ₅ , G ₅ | 1 \emptyset 11 | *11 \emptyset | 1 \emptyset 11 | *1 \emptyset 1 \emptyset |
| S → 1 | 11 \emptyset 1 | *1 $\emptyset\emptyset$ | 1 $\emptyset\emptyset\emptyset$ 1 | *111 \emptyset |
| 1 → 1 1 | 111 \emptyset | *1 \emptyset 1 \emptyset | 1 \emptyset 1 \emptyset 1 | *11 $\emptyset\emptyset$ |
| 1 → \emptyset 1 | ... | ... | ... | ... |

Figure 5. Theory construction in linguistic research. The method of theory construction—the process which starts with observation, goes on to invent hypotheses, formulates the hypotheses as algebraic models and deduces their consequences, and terminates in inductive verification or refutation—is the method of research used in transformational generative grammar. This summary is based on the work of C. S. Peirce.¹¹

THEORY CONSTRUCTION

THEORY INVENTION STAGE

Abductive Reasoning. A theory is an invention of the human imagination. Drawing on his familiarity with the data, the linguist must try to fathom the general principles which underlie the phenomena. He must make a conjecture about the character of the mechanisms which underlie the flux of data, and further, formulate these general mechanisms as rules from which specific consequences can be deduced.

HYPOTHESIS TESTING STAGE

Deductive Reasoning.

- (1) The linguist must consider all previously proposed or natural alternatives to his proposal.
- (2) He must formulate each proposal in sufficient detail that specific consequences can be deduced from it. For any proposal, P_x , we must be able to determine what must be true if P is true. Proposals must be sufficiently explicit to lead to unequivocal assertions since testability hinges crucially on the precision of assertions.
- (3) He must determine the areas in which the alternative proposals make different empirical claims about a given range of data. This is the area of crucial examples.
- (4) Deductive arguments are valid or invalid, not strong or weak.

Inductive Reasoning:

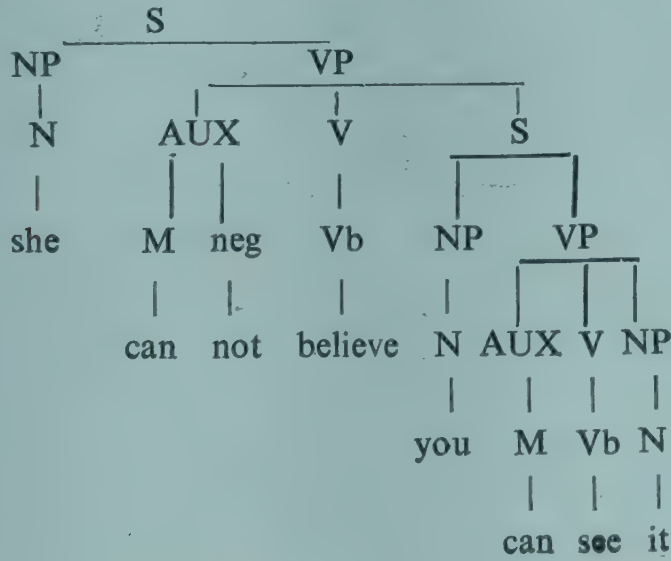
- (1) The linguist must compare the alternative proposals with the data and with each other to decide which grammar provides the most accurate, and in some sense, most insightful, description of the phenomena.
- (2) He must search for crucial examples which show which grammar is superior, and he must show how and why those examples are crucial.
- (3) He must invent arguments which answer the question: 'What factors determine which of two rival theories or explanations yields greater understanding of the principles of sentence construction?'
- (4) Inductive arguments are strong or weak. A linguist should construct strong inductive arguments by using data about which the facts are clear and by avoiding misleading subsets of data.

FIGURE 6. A PSG containing a recursive element generates an infinite number of PM's, each of which corresponds to a sentence. The set of PS rules, G_A , containing S as a recursive element, will generate PM(A) -PM(E), among others. There exist certain abbreviatory conventions: The rule $A \rightarrow B(C)D$ is an abbreviation for the two rules: $A \rightarrow BCD$ and $A \rightarrow BD$. The rule $A \rightarrow B \left\{ \begin{smallmatrix} C \\ D \end{smallmatrix} \right\} E$ abbreviates the rules $A \rightarrow BCE$ and $A \rightarrow BDE$. The constituent labels used are: S=sentence, NP=noun phrase, VP = verb phrase, AUX=auxiliary, V = verbal, PP=prepositional phrase, P=preposition, DET=determiner, N = noun, PRT=particle, Vb=verb, ADV=adverb, ADJ=adjective. G_A incorrectly generates PM(E) corresponding to the ill-formed **The man will look up the girl up*.

PS Grammar, G_A

- S \rightarrow NP VP (ADV)
- VP \rightarrow AUX V ($\left\{ \begin{smallmatrix} NP \\ PP \end{smallmatrix} \right\}$) (PRT) ($\left\{ \begin{smallmatrix} PP \\ S \end{smallmatrix} \right\}$)
- V \rightarrow Vb (PRT)
- PP \rightarrow P NP
- NP \rightarrow (DET) (ADJ) N (S)
- AUX \rightarrow M (neg)
- DET \rightarrow the, a, this, , ,
- P \rightarrow on, in, over, at, , ,
- M \rightarrow will, can, shall, , ,
- PRT \rightarrow on, up, in, , ,
- Vb \rightarrow look, see, run, eat, , ,
- N \rightarrow John, Mary, boy, girl, , ,
- neg \rightarrow not, never, , ,
- ADV \rightarrow today, now, here, there, , ,
- ADJ \rightarrow big, small, whole, new, , ,

PM (A)



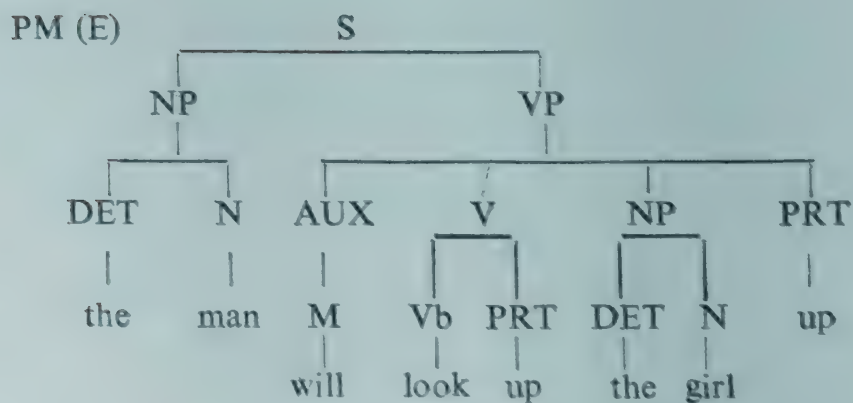
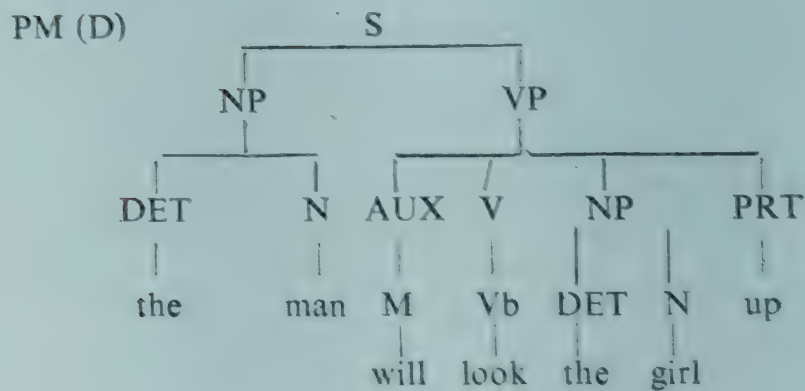
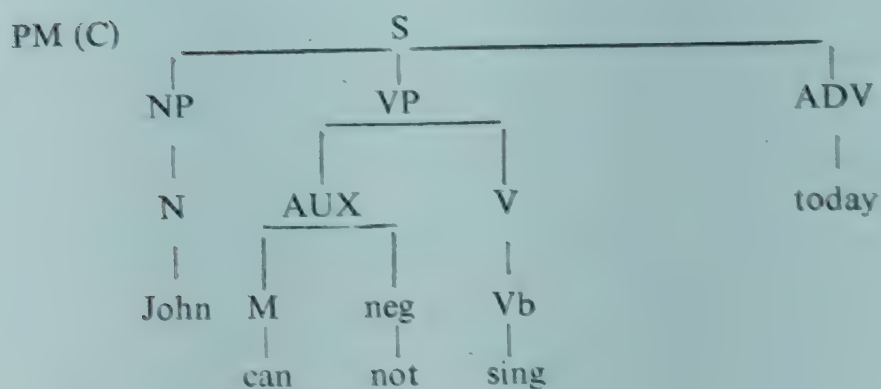
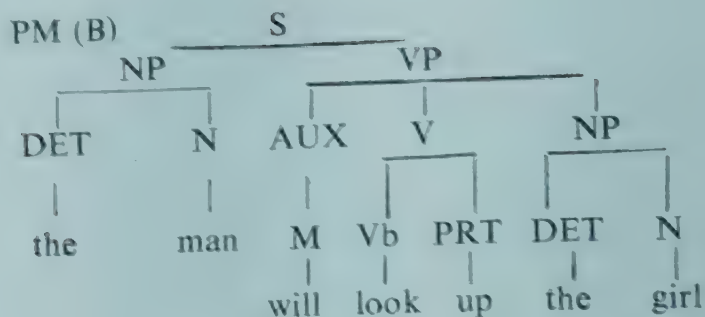


FIGURE 7. Two optional T rules: T_Q and T_{PRT} . A T rule, defined by its SA and SC, converts a DSPM or a derived PM into a new derived PM. X and Y are unspecified variables, i.e. any constituent or string of constituents. In constructing a TGG, two considerations are (a) the form of the T rules (i.e. the specific SA and SC of each rule) and (b) the order of T rules. The rules below are unordered, but see FIGURE 9. The form of T_Q below is a first approximation. T_Q is revised in FIGURES 8 and 9. The optimal form of T_Q requires algebraic variables, i.e. variables which range over restricted sets of constituents.

Particle Movement Transformation : T_{PRT}

SA : X Vb PRT NP Y
SC : X Vb NP PRT Y

Question Transformation : T_Q

SA : NP AUX X
SC : AUX NP X

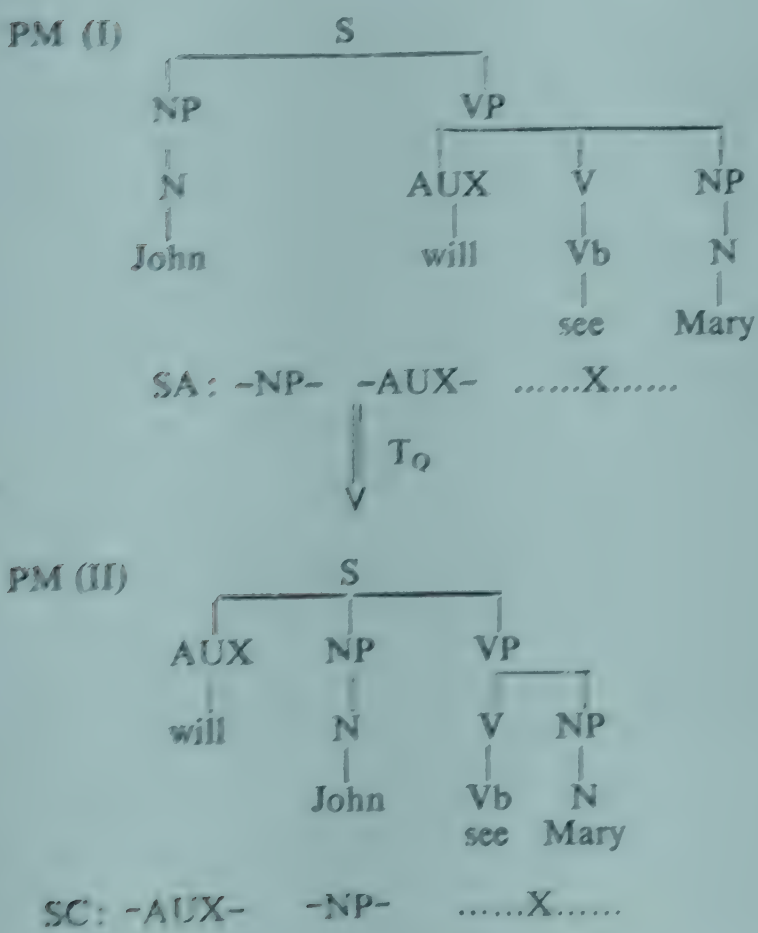


FIGURE 8. An illustrative TGG. A TGG has two components: (a) The *base component* of a TGG consists of a recursive set of PS rules and a lexicon (or dictionary), which is essentially a list of all of the words in the language. For simplicity, the lexicon is presented here as a set of PS rules but in a more complete TGG the lexicon would be more complex. The base component generates DSPM's. (b) The *transformational component* of a TGG consists of a set of linearly ordered T rules, some obligatory and some optional, which have certain conditions of application. The input to the T component are the DSPM's. The PM derived by application of the last transformation is called the surface structure PM, SSPM,

The TGG here will generate the sentence in Figure 9. The PM's relevant in generating the Σ of the sentence *Has Mary been looked up by the boys?* are indicated on the figure. See Figure 9 for PM (1)-PM (4).

TRANSFORMATIONAL GENERATIVE GRAMMAR

BASE COMPONENT

PS Rules (recursive element is S)

$S \rightarrow NP VP (ADV)$

$VP \rightarrow AUX V (\left\{ \begin{array}{c} NP \\ PP \end{array} \right\}) (\left\{ \begin{array}{c} PP \\ S \end{array} \right\})$

$V \rightarrow Vb (PRT)$

$AUX \rightarrow (M) (have en) (be ing)$

$PP \rightarrow P NP$

$NP \rightarrow (DET) (ADJ) N \left\{ \begin{array}{c} SG \\ PL \end{array} \right\} (S)$

Lexicon

$ADV \rightarrow \text{today, here, now, , ,}$

$Vb \rightarrow \text{look, see, eat, , ,}$

$M \rightarrow \text{will, can, shall, , ,}$

$P \rightarrow \text{on, in, at, , ,}$

$N \rightarrow \text{John, Mary, girl, boy, , ,}$

$DET \rightarrow \text{the, a, this, , ,}$

$ADJ \rightarrow \text{whole, new, big, , ,}$

$PRT \rightarrow \text{up, out, in, , ,}$

PM (1)

TRANSFORMATIONAL COMPONENT

$T_{PASS} SA: NP_1 AUX V NP_2$

$SC: NP_2 AUX be en V by NP_1$ PM (2)

$T_{PRT} SA: X Vb PRT NP Y$

$SC: X Vb NP PRT Y$

$T_{AFF} SA: X AFF V Y$

$SC: X V AFF Y$ PM (3)

$T_Q SA: NP E+AFF X$

$SC: E+AFF NP X$ PM (4)

Σ

$\Sigma = PM (1), PM (2), PM (3), PM (4)$

FIGURE 9. Optional (T_{PASS} , T_Q) and obligatory (T_{AFF}) T rules. T_Q and T_{AFF} utilize algebraic variables, i.e. variables which range over restricted sets of constituents. X and Y are unrestricted variables, i.e. any sequence of constituents. The T rules must apply in the order: T_{PASS} , T_{PRT} , T_{AFF} , T_Q . The ordering of T rules is an empirical question since different orderings will generate different sets of sentences. For example, if T_{PRT} is applied before T_{PASS} , then from the base string *The boys PL have en look up Mary SG*, T_{PRT} would derive *The boys PL have en look Mary SG up*, from which T_{PASS} could derive *Mary SG will have en be en look by the boys up*, which T_{AFF} and the morphological rules would convert to the ill-formed **Mary has been looked by the boys up*. This is not generated if T_{PRT} follows T_{PASS} , the ill-formed **Mary have been looked by the boys will be* generated; if T_{PASS} precedes T_{AFF} , it will not be generated. Morphological rules convert *look + SG* to *looks*, *have + SG* to *has*, *see + PL* to *see*, *go + en* to *gone*, etc.

Passive Transformation : T_{PASS}

SA : NP_1 AUX V NP_2

SC : NP_2 AUX be+en V by NP_1

Affix Transformation : T_{AFF}

SA : x AFF v Y

SC : x v AFF Y

where : v = *M*, *Vb*, *have*, *be*

AFF = *en*, *ed*, *ing*, *SG*, *PL*

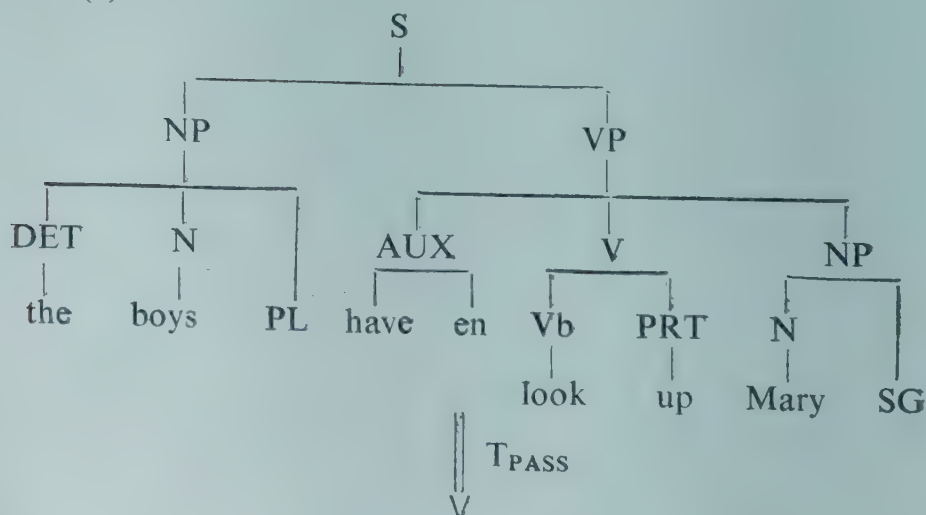
Question Transformation : T_Q

SA : NP E+AFF x

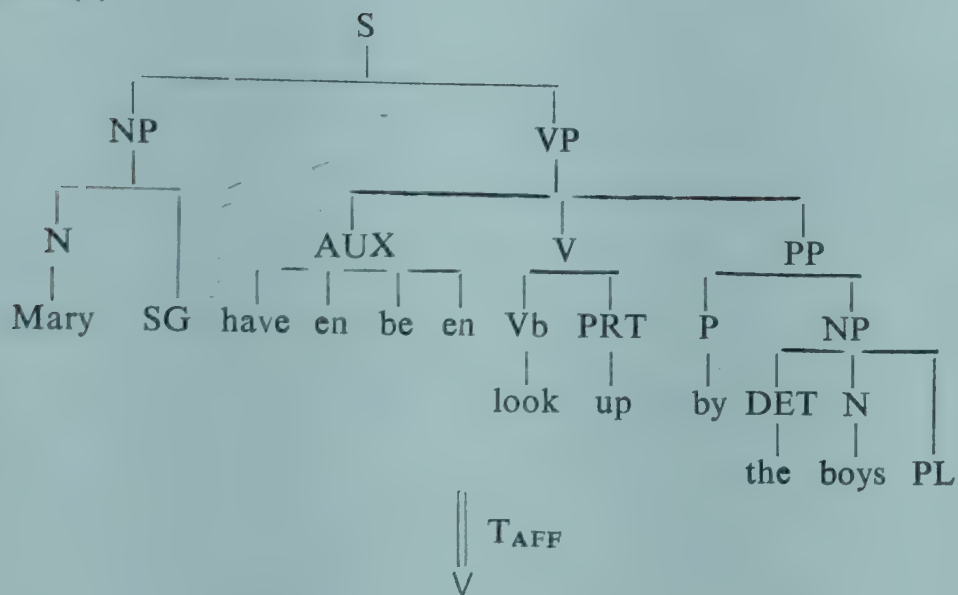
SC : E+AFF NP x

where : E = *M*, *have*, *be*

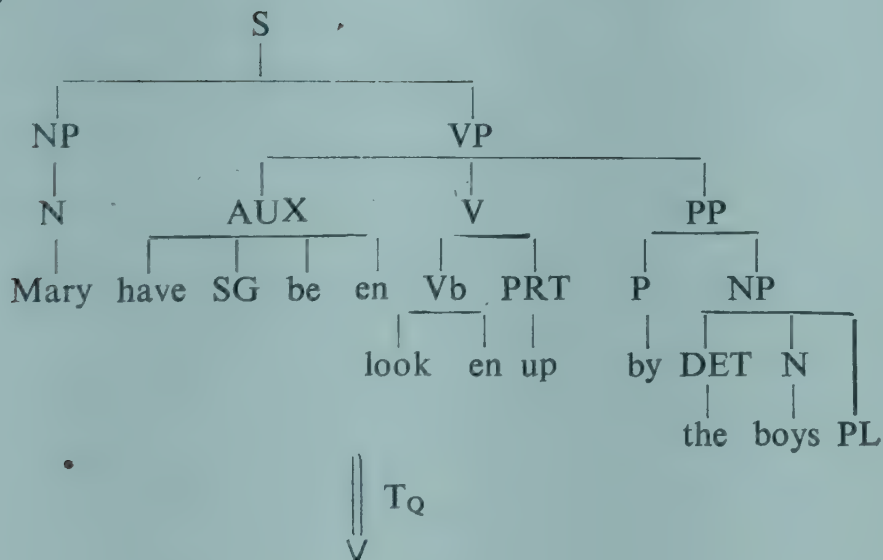
PM (I)



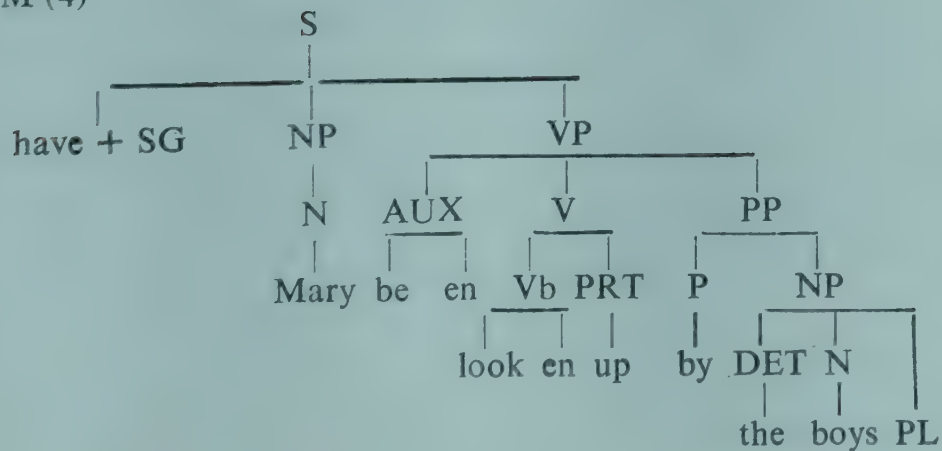
PM (2)



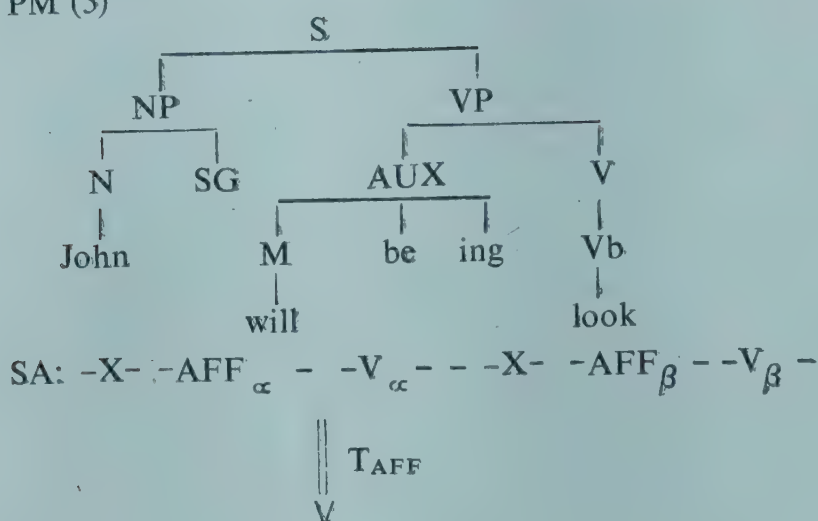
PM (3)



PM (4)



PM (5)



PM (6)

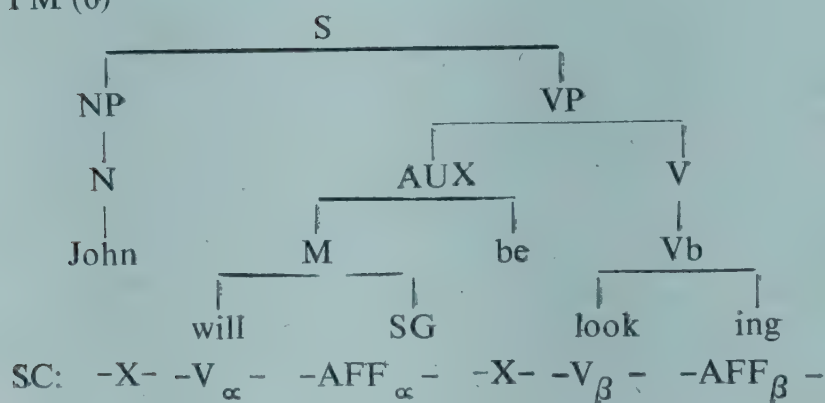


FIGURE 10. A generalized TGG. A TGG containing recursive rules will generate an infinite number of syntactic structures (Σ 's), where each Σ is a set of PM's, and each Σ corresponds to a sentence. A Σ is an unobservable sentence function from which one can determine, via functional operators, all the observable phonologic and semantic properties of the sentence. A Σ will contain at least two PM's: an abstract DSPM, generated by the base component, and an SSPM, which is derived by applying all the obligatory, and perhaps some of the optional, T rules to a DSPM.

TRANSFORMATIONAL GENERATIVE GRAMMAR

Base Component

PS rules (recursive). A recursive set of PS rules will generate an infinite set of PM's. Thus, at the PS level of analysis, a sentence can be analysed as a string of constituents, these constituents are in a hierarchy, and there are similarities and differences between the constituents in the hierarchy.

Lexicon. Each item (entry) in the lexicon is marked for the information requisite to determining its sound, meaning, and syntactic behavior in the system of grammatical rules. The lexicon expresses that, at the level of word (morpheme), there is an arbitrary connection between sound and meaning, and also, that there are exceptions to general rules.

DSPM

Transformational Component

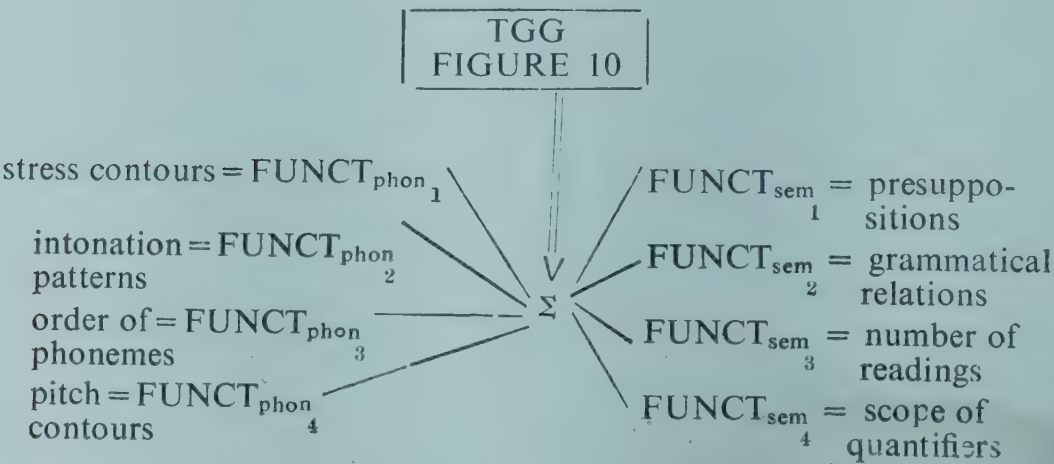
T rules (optional and obligatory, linearly ordered). By incorporating obligatory T rules, the claim is made that the Σ of a sentence will consist of at least two PM's. Thus, at the T level of analysis, a sentence can be considered to be a set of PM's. The myriad syntactic patterns found in the sentences of a language can be described by a small number of T rules, each one simple in itself, which can rearrange constituents in DSPM's and derived PM's.

PM_j

SSPM

$$\downarrow$$
$$\Sigma = \text{DSPM} , , , \text{PM}_j , , , \text{SSPM}$$

FIGURE 11. The observable properties of a sentence S_x are completely defined by its syntactic structure Σ_x . Observable properties are derived by phonologic functions, $FUNCT_{phon}(\Sigma)$ and semantic functions, $FUNCT_{sem}(\Sigma)$. See Chomsky^{1,6} for discussion of the observables listed below. There are many more observables than those listed here.



**REPLIES TO COMMENTS OF PANDIT,
RAMARAO *et al***

P. Satyanarayana

Urbana Il.

When the honourable editor of this journal told me that my paper was being sent for comments, I did not really know what to expect. On the one hand, this has been a stimulating experience, but on the other it is a big challenge, which I am not sure how well I handled in *ijdl* Vol. III No. 2. Different scholars, stalwarts in the field firing away questions can itself be scary. To top that, some of them seem to be testing not the contents of the paper but the confidence of the author. Comments of Dr. Pandit and Dr. Ramarao seem to be of this type. Other than that, I cannot see any reason for the presence of several wrong presuppositions in their questions. (Remember the famous question—When did you stop beating your wife?) So, I decided to meet the challenge head on and I hope the readership will construe any boldness expressed in my answers as due to the challenge posed and not due to any unfriendliness.

First, let us consider the statement “One wonders, why a derivational process, which has been well taken care of by grammarians, should be incorporated in the P-S rules.” This presupposes the existence of a group of grammarians who have well taken care of the derivational process under discussion. One wonders who those grammarians are and how well they have taken care of it. It should be remembered that saying that a set of words A and another set of words B have semantic and phonological similarities, and telling what those similarities are is different from telling how to identify these sets; and they are both different from telling how these statements fit in the model of the whole grammar of the language. We can find clear statements of the first sort, sketchy to fairly detailed statements of the second sort, and (as I tried to demonstrate in my paper) only hand-waving with regard to

the third. So the only answer possible is: Who are those grammarians and how did they handle derived nouns, etc.?

Consider next, "Current fashion in linguistics requires that the initiated make 'proposals',...specimen of this genre." The examples given to support their statement are two references I made to Subbarao in the paper. The presuppositions P & R are making here are that rules are real and that every theory must have the same rules. But the first is unbelievable, to say the least, and I do not think any linguist would support this position. P & R could not mean the second, because that would amount to claiming that there can only be one theory. (If every theory has the same rules, then what is the difference between the different theories?) What is common to different theories is perhaps the data. Any assumption that a rule postulated by a grammarian X working in a particular theory XX will also be postulated by another grammarian Y working on a different theory YY denotes a belief in non-plurality of theories. Same rules may be postulated by both X and Y, but each has to justify the rules *within their own theories*. P & R seem to forget that one can not just borrow rules from other theories. Even referencing the rules in the other theory can be misleading unless proper precautions are taken; it may suggest that the two theories are the same, which is wrong. Thus we have invalid presuppositions in their comment.

The last paragraph of P & R's comments is a continuation of the above fallacy based on wrong presuppositions. Perhaps what P & R meant was that I should have mentioned that we were not the first persons to work on Telugu as such. I regret this and thank P & R for bringing this up. But I can probably be excused on the ground that I was not attempting a grammar of Telugu but was only using Telugu case as an evidence.

Turning now to some less severe remarks, we find P & R wondering why only the derivation of nouns and verbs is handled through P-S rules and not the rest. Part of the answer may be found in the concluding remarks of the main paper. At that time it was left as an open question because not all the words in a language were studied. But, as mentioned in some of my early replies, my proposal does not exclude the possibility of having rules such as $ADJ \rightarrow N$, $N \rightarrow ADJ$, if the language warrants it.

P & R say that the verb-demoting rule does not constitute syntactic motivation for the new P-S rules. If it is true, one wonders if there is any syntactic motivation for any P-S rule at all. It would seem, then, that one can only *believe* in a P-S rule and not

motivate it syntactically. It may be my limitation in understanding what syntactic motivation is, but I believe I have provided syntactic motivation for the proposed rules.

Thus, all questions and comments of P & R are either based on wrong presuppositions or are not strong enough to abandon the proposal.

Turning to the comments of Dr. Matthews, we note that first he raises his doubts about transformational grammars' capability to handle "derivational morphology" and "indeterminacy", and then he asks if it matters how a particular grammarian or book presents the rules.

The only sure way to convince anybody that a model can do certain things seems to be to build the model in detail and present it. Until then it stays a matter of personal belief and argumentation. So all I can say at this time about M's first point is that we believe that transformational model is in general more promising than other models although problems such as indeterminacy are still not solved completely. As for M's comments about the rules in *Aspects* I can only clarify my intent behind the paper. I only tried to show that as the theory of transformational grammars stood then, some fundamental change was needed, not just a slight modification of a single rule or of a number of rules; if we think of grammar as a black box, the grammar could simply not generate the type of sentences and constructions I discussed. It was not my intention to say that Chomsky wrote a particular rule wrong, or that a particular rule of English does not have certain relations with a particular rule in Telugu. If a wrong impression was created, I beg the pardon of the readership. Further, it may be that there are more important and interesting questions related to the data I considered, but at that time it seemed to me that the gap in the model was important enough to investigate. So I conclude by thanking M for pointing out what he considers are important questions. Maybe someday I can work on them if no satisfactory answers have been found till then.

As for Dr. Krishnaswamy's comments, I first thank him for his compliment. His suspicion with regard to category changing rules seem to be due to lack of explicit decision procedures for determining the structure of a word (that is, if both a noun and a verb are the same, which one should be dominated by two nodes?). In the case where there is an extra morpheme, we can use the unwritten convention of

deriving the longer word from the shorter word, but in other cases we may have to depend on our intuitions.

Words such as Tamil *nallavan* 'one who is good' seem to be due to transformations (such as relative reduction), and so the proposed P-S rules have little to do with them.

K is mistaken about my treatment of neutral forms because I rejected the idea of using a category called stem to be used for neutral forms (p. 341).

Categorization and subcategorization of words and P-S rules that are closely related to lexical insertion seem inevitable and to that extent K has a point when he says taxonomy is as important as the principle of relationship in the structure of language.

To conclude the discussion, I again thank all my commentators and especially the editor for this educating experience. I realize that there are several unanswered and partially answered questions on the topic of my paper and the style can also be improved at certain places. Whether I answered the questions well or not, I have learned a lot from this.

DISCUSSIONS ON RAY C. DOUGHERTY'S

'Generative Semantic Methods: A Bloomfieldian Counterrevolution'

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In '*Generative semantic methods: a Bloomfieldian counter-revolution*', in *ijdl* Vol III No. 2, Ray C. Dougherty undertakes to show that generative semantics is 'the results obtained by applying the methods of pregenerative (taxonomic) linguistics to justify taxonomic grammars which have a generative flavor, i.e. formulations which use the terminology of generative grammar, but which contain no rules to generate sentences'.

Before taking up what Dougherty offers in support of these two charges, one having to do with 'applying methods of pre-generative grammar', the other having to do with failure to provide 'rules to generate sentences', I should remark that he can hardly be expected to have shown anything about generative semantics, since, except for some works that he cites only in passing (Lakoff 1971, Postal 1970, and the postscript to McCawley 1968), the works by generative semanticists that he discusses were written before the respective authors adopted positions that could reasonably be identified as generative semantics (e.g. before they adopted the position that the rules relating meaning to surface form need not involve any level corresponding to the 'deep structure' of Chomsky 1965 and that no distinction between 'transformation' and 'semantic interpretation rule' was warranted). Fully one fourth of '*A Bloomfieldian counterrevolution*' is devoted to criticism of Postal 1966. Dougherty's fetishistic attachment to that paper, which he also discusses at length in several other of his works, is incomprehensible to me. Postal 1966 is neither generative semantics nor an important way station on the road to generative semantics (in how many generative semantic papers has it even been cited as a reference?):

it is simply a paper that a prominent generative semanticist wrote when he still subscribed to 'standard transformational grammar'. It is of as much relevance to a critique of generative semantics as Picasso's 'Blind guitarist' is to a critique of cubism. Dougherty no doubt holds that the works he discusses illustrate evil ways of generative semanticists which persisted after they became generative semanticists. However, to establish that conclusion he would have to at least take the trouble to cite examples of generative semanticists sinning in the process of doing generative semantics.

It is not entirely clear that Dougherty meant what he said in his statement of the first charge. While he speaks of generative semanticists 'applying the methods of pregenerative (taxonomic) linguistics to *justify* taxonomic grammars which have a generative flavour', he says nothing in the body of the article about how generative semanticists have *justified* their analyses. Rather, his references to 'taxonomic methods' have to do with ways in which the respective authors have presented facts or have proposed tests for membership in categories that figure in their analyses, such as Postal's setting up a feature of 'definiteness' on the basis of the fact that the kinds of NP's which can occur in frames such as (1a) are the same kinds that can occur in frames like (1b) and are also the same as the kinds which cannot occur in frames such as (2a) and those which cannot occur in frames like (2b)¹:

- (1) a. Big as—was, he couldn't lift it.
- b. —is John's.
- (2) a. It was—for Jack to leave.
- b. There's—on the table.

Dougherty does not maintain that the facts are other than Postal stated them, nor does he contest Postal's implicit claim that the rules involved in the derivations of the sentences in question must be sensitive to the definiteness of distinction as drawn by Postal. Here Dougherty's objections seem to be in the realm not of methodology but of etiquette: he is objecting not to the content of Postal's treatment but to Postal's having chosen a mode of presentation that reminds hyper-sensitive transformational grammarians of a linguistic school that they find offensive.

Or, at least, that is the impression that I get from most of Dougherty's paper. However, isolated passages suggest that he may instead (or in addition) have simply misunderstood what Postal was doing. For example, at one point (p. 262) he uses the expression 'substitution tests for constituent structure' in connection with Postal's

tests for definiteness. Until I read that passage in Dougherty's paper, it had never occurred to me that Postal's tests for definiteness might be anything other than tests for definiteness, i. e. tests for determining the subcategorization of items that had already been identified as constituents (indeed, as NP's). However, the interpretation of the tests as being tests for constituent structure makes so little sense in the context of Postal's paper that if Dougherty wishes to adopt that interpretation he is obliged to provide justification for it. I see a similar misunderstanding where Dougherty objects (p. 264) to Postal's offering as 'among the strongest evidence for our overall claim that so-called pronouns have essentially the same types of derivation and status as traditionally recognized definite articles', the conclusion that in expressions such as *we linguists* 'we actually find the so-called pronouns *we/us* and *you* as *articles* in the *surface structure*' [Postal's emphasis]. Dougherty takes Postal's statement that *we* occurs as an article in *we linguists* to mean simply, that it occurs in diagnostic environments for 'Article', for example, that it occurs in the frame '—policemen'. Postal, however, was claiming considerably more than that: he was claiming that no other analysis of the role of *we* in *we linguists* was tenable. Indeed, the passage quoted by Dougherty comes immediately after an extended argument that the one other likely-sounding interpretation of the rule of *we*, namely that it is the head of an appositive construction, is untenable. Dougherty, incidentally, does not indicate what he makes of the fact that Postal analysed personal pronouns as articles even when (as is usually the case) they do not occur in a 'diagnostic frame for "Article" '.

The specific objections that Dougherty raises under his first charge seem ludicrous in light of the fact that the same symptoms of 'taxonomic methods' that Dougherty finds in Postal 1966 can be found in Dougherty's own work. Dougherty defines features that figure in his analysis in terms of distributions: '[+individual]: The adverbs *alone*, *singly*, *individually*, and *independently* can occur with a quantifier having this feature' (Dougherty 1970: 868); and the analysis of *we linguists* given in Delorme and Dougherty 1972 is at least as 'taxonomic' as that of Postal 1966: Delorme and Dougherty treat *we linguists* as an appositive construction (relying, among other things, on the fact that *linguists* occurs there in the diagnostic environment for 'appositive'), but reject the popular analysis (accepted by Postal) of appositives as reduced non-restrictive clauses and incorporate them into their analysis by assigning them a deep structure that coincides with their surface structure². Of course Dougherty does more than just this taxonomy: he offers

various arguments that purport to show the superiority of his analysis over various alternatives; but so does Postal.

When Dougherty says that 'Chomsky argues... that the linguist must seek to evaluate grammars which generate the sentences of a language and not attempt to construct substitution tests to discover facts about the surface structure distributional similarities of strings' (pp. 263-4), I conclude that he does not understand the nature of 'the Chomskyan revolution'. In 'taxonomic' linguistics, a grammar could be correct by definition: if you started with accurate and copious data and carried out segmentation and classification according to a rigorous scheme, your conclusions were correct regardless of what they were. Chomsky broke with the taxonomic tradition by arguing that the correctness of a grammar depended not on how it was arrived at but on whether it conformed to the facts of the language (the language, not the corpus that the linguist analysed) and whether it was superior (e.g. by virtue of greater generality of its rules) to other grammars that conformed to the facts.

In both taxonomic linguistics and early transformational linguistics, the only data considered were distributional data: which combinations of morphemes (or phonemes, etc.) were possible and which ones were not possible? In taxonomic linguistics, writing a grammar consisted entirely in gathering and tabulating data. The 'Chomskyan revolution' did not banish taxonomy from syntax; rather, it localized taxonomy to a component of the grammar (the base component) which was of the same formal nature as a taxonomic grammar but described distributions at a level where more regularity prevailed than at surface structure; indeed, the classic arguments for the superiority of transformational grammar over taxonomic grammar have all consisted in the author giving a partial tabulation of surface distributions, which appear to be highly irregular, and then showing that if certain transformations and underlying structures are posted, the irregular surface distributions will be a reflection of distributionally regular underlying structures. The supposed instances of 'taxonomic methods' that Dougherty discusses are thus merely instances of transformational grammarians carrying out normal business; any similarity with the normal business of taxonomic grammarians is because the set of facts that transformational grammarians take it upon themselves to account for is identical to (in the case of early transformational grammar) or includes (in the case of more recent transformational grammar) the set of facts that taxonomic grammarians are concerned with.

Regarding Dougherty's second charge, it is not clear why he takes failure to 'present rules to generate sentences' to be characteristic of 'pregenerative (taxonomic) methodology': Bloch 1946 and Harris 1946 contain taxonomic grammars that specify which strings of morphemes conform to the grammar and which ones do not just as precisely as does any transformational grammar. I assume, incidentally, that Dougherty uses the word 'generate' in the same sense as Chomsky does: 'specify what belongs and what does not belong to the set in question'.

Before taking up Dougherty's second charge, I should point out that in expressing concern only about 'rules to generate sentences', Dougherty allows a double standard: he distinguishes between 'rules to generate sentences' (transformations and base rules) and 'semantic interpretation rules' and imposes rigorous standards of explicitness only on the former. This double standard is practised by Chomsky and most of his current adherents₃ (see Chomsky 1972 and my review, McCawley 1974): they generally give grossly inexplicit formulations (or no formulation at all) to the semantic interpretation rules that they allude to. This double standard reduces to vacuity much of the argumentation that has been offered for distinguishing between 'syntactic rules' and 'semantic interpretation rules': a choice between alternative analyses is being made without specifying what the alternative analyses are.

When Dougherty speaks of failure to 'present rules to generate sentences', it is not always clear whether he is using 'present' in a narrow or a broad sense. If he intends it in the narrow sense of 'formulate in a fixed notational scheme such as that of Chomsky's Aspects', then his objection is of no consequence. The popular schemes for formulating transformations have serious defects, such as that they do not make clear what the constituent structure of the output is to be⁴ and that they require the mention of irrelevant items. Until some such notational scheme has been shown to provide an adequate medium for specifying the content of transformations, there can be no serious objection to analyses in which each transformation is 'presented' by giving an informal account of the relationship between its input and output and the conditions under which it is applicable⁵. Such informal formulations abound in generative analyses of all varieties; if anything, they are less frequent in taxonomic linguistics.

Alternatively, Dougherty may be claiming that it is wrong to give linguistic arguments which involve linguistic phenomena that one has not proposed (formally or informally) rules for, or

at least, rules *to generate sentences* of the type in question. For example, he may be objecting to Postal's bringing in examples like *Big as Harry was, he couldn't lift the rock* without proposing 'rules to generate' the 'Adj as X be' construction. Acceptance of such a restriction would entail rejection of generative semantics, since virtually every sentence involves aspects of meaning which have not been adequately analysed (e.g. aspect, genericness, pre-supposition) and any proposal made within a generative semantic framework could thus be justified only by arguments that violate the putative methodological restriction. However, I see nothing to recommend that restriction: its principal effects would be to inhibit thinking about poorly understood areas, thus decreasing the likelihood that they will ever be well understood, and to produce a false confidence in analyses for which 'rules to generate sentences' have been 'presented' but their interactions with the gamut of linguistic phenomena have not been tested, for want of analyses of those phenomena. For example, Chomsky's celebrated analysis of auxiliary verbs achieved remarkable popularity on the basis of its interactions with a small number of phenomena for which 'rules to generate sentences' had been 'presented'; however, it has been shown to be untenable (McCawley 1971) on the basis of its interaction with some only partially understood phenomena such as co-occurrence restrictions between auxiliary verbs and time adverbs.

Dougherty's statements about revolution and counterrevolution suggest that he has wrongly identified the kind of revolution that Kuhn is concerned with and the kind that Mao is concerned with. A scientific revolution is closer to a technological revolution than to a political revolution. In the technological revolution in which ballpoint pens have displaced fountain pens, there was no instant consignment of fountain pens to the trash heaps. Rather, a tremendous demand for ballpoint pens developed and the demand for fountain pens decreased considerably, though to nowhere near zero. This is just like a scientific revolution: the older theory lives on, though with somewhat fewer adherents and a much smaller share of the market for ideas. In asking such questions as (p. 278) 'What ever became of those linguists who were thoroughly trained in taxonomic methodology?', Dougherty errs in assuming that they aren't in general just openly continuing to do taxonomic linguistics. The absolute number of taxonomic linguists has probably changed very little in the last fifteen years, though the fraction of linguists doing taxonomic linguistics has decreased drastically due to the drastic increase in the number of people in the field. The colony of displaced persons yearning for their overrun taxonomic homeland

need be postulated to explain where they went. A final thought: was it counterrevolution when some manufacturer of ballpoint pens started manufacturing refills?

FOOTNOTES

1. My use of the expression 'kind of NP' is overly vague. Postal's distinction had to do only with the determiner system, not the noun. The fact that *Mao's conception of revolution* is not possible in frame (1a) does not make it indefinite, nor does the fact that *a persimmon* is not possible in frame (2a) make it definite. Postal's approach, incidentally, requires that a distinction be drawn between definite and indefinite uses of *the*, in the sentence *There were the usual men in the bar*, the first *the* would be indefinite and the second one definite.
2. Or at least, insofar as their surface structure is known. Delorme and Dougherty's phrase structure rule for appositives, NP → NP (NP), is highly questionable. It allows no non-adhoc way of excluding [[*the policemen, five Catholics*] *we Republicans*] while allowing [[*we policemen*] *defenders of the law*], a distinction that follows automatically from Postal's analysis.
3. One notable exception to this criticism is provided by recent works of Jackendoff (e. g. Jackendoff 1972), who takes considerable pains to make explicit exactly what each of his semantic interpretation rules does and the details of his semantic representations.
4. For example, Lakoff *et al.* 1972 note that the 'standard' formulation of Subject-auxiliary inversion gives little clue to what the output constituent structure should be. According to a remarkably widespread belief among transformational grammarians, the change in constituent structure which a transformation brings about is predictable from the changes in order of elements. As far as I can determine, this belief is wholly unsupported and owes its currency solely to the popularity of notational schemes that make explicit the change in order of elements but not the change in constituent structure that a transformation brings about.
5. Compare Geach's remark (1972:198): 'There is a prevailing impression that the formal study of semantics, as it is now carried on by Carnap and his disciples, is an extremely rigorous discipline. This impression is no doubt produced by the

apparatus of numbered theorems, special symbols, new terminology, and so on. Much of Frege's work in semantics maintains very high standards of rigour without any of this apparatus. On the other hand the use of such apparatus does not prevent blunders: I shall illustrate this [from various works by Carnap]'.
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In his paper Dougherty, (1974), raises a number of fundamental issues about the methodology of Generative Semantics and demonstrates persuasively that its methodology differs from that of Generative Grammar. Since substantive theories reached by different methodologies cannot be compared, any claims that Generative Semantics has made substantive advances over Generative Grammar must be disregarded. Dougherty further claims, and again I would agree, that the methodology of Generative Semantics is a regression to an earlier methodology, that of taxonomic linguistics.

However, it is possible, I think, to go further and say that it is also a regression in more general terms. It is a regression away from the scientific methodology of Chomsky to the less fruitful realms of pre-scientific speculation and data collecting. To substantiate this claim I will examine Dougherty's paper in the light of the methodology of science proposed by Popper in his *The Logic of Scientific Discovery*.

Popper's view of science is that science is characterized by the application of deductive tests on general statements. Typically scientific hypotheses take the form of statements such as "All pigs can fly." It follows deductively from this statement that "Pig X can fly." Thus the original theory can be tested by looking for pigs which can't fly; i.e. for a particular statement "Pig X can't fly." Such a statement disconfirms the theory. A new theory has then to be created. The creation of new theories is, according to Popper, a function of creative imagination and not open to logical analysis. However, the new theory is in its turn available for refutation by further particular statements based on experience.

Popper shows that the more popular view that science by induction from particular statements to general statements cannot be logically justified since there must always be particular statements which may be made in the future and which have the potential to disconfirm the general statement reached by inductive logic.

Thus science, according to Popper, is characterized not by the truth of its statements but by their falsifiability.

Taxonomic linguistics adopts an inductive approach to theory construction. Typically it involves the observation of a set quantity of data, (a corpus). The corpus is then processed using a set of

analytic techniques, (discovery procedures). These lead to a theory of the particular data. In the area of syntax the discovery procedures took the form of some type of immediate constituent analysis and the resulting theory, the form of a set of units.

There are two basic problems with the methodology of taxonomic linguistics. The first is that theories which result from its application have no formal shape, i. e. there is no logical calculus which defines the empirical domain of the theory or its logical structure. It is thus very difficult to falsify because it does not formally define a range of possible statements which would be counter examples to it and it cannot be examined for illogicality.

The second is that differences in analysis (i.e. different theories produced by the same discovery procedures) must remain differences of opinion between the proponents of the different theories, since without a formal shape it is not possible to decide which is superior, either by finding crucial examples or by examining their internal structure. To put it more simply, it is only when a theory states its rules explicitly that it is possible to find what data the rules don't cover. Then only it is possible to compare two empirical systems scientifically to see what competing claims they make about their respective empirical domains by their explicit definition of those claims. Without such knowledge, advancement in science is impossible.

Thus, in the empirical sciences, only those problems which are raised by available theories can be subject to serious speculation. These problems are only a very small sub-set of possible problems. Many of the possible problems are of great intrinsic interest, no doubt, but they must often be left aside since science makes progress only when the scientist is confronted with the problems raised by theories. It is theory which offers the scientist the opportunity to make decisions and it is decisions which create insights into the nature of reality. To quote Popper:

"Even the careful and sober testing of our ideas is in its turn inspired by ideas: experiment is planned action in which every step is guided by theory. ... It is we who always formulate the questions to be put to nature; it is we who try again and again to put these questions so as to elicit a clear cut-'yes' or 'no'."

(Popper, 1959, p. 280)

Generative Semantics must therefore be seen as operating at a pre-scientific level of open speculation. Such a level is not without

its uses since it can throw up ideas which may later be noted that such ideas have no scientific status until they *are* incorporated into such a theory.

This leads me on to the claim of Maclay, (1971), quoted by Dougherty, that :

“The remarks in Lakoff (1971: 232, fn.a) describing the development of generative semantics sounds very much like Kuhn’s description of the period when an established paradigm is coming under attack for its failure to solve legitimate problems.” (p. 178)

Such a claim is, in fact, a covert attempt to show that Generative Semantics is an advance on Generative Grammar. Kuhn’s study is a quasi-sociological study of advances in science and as Dougherty points out, not a very revealing one. But while it may be the case that advances in science are accompanied by certain sociological situations, such situations can not be used to show that one theory is an advance over another. Theory A is an advance over theory B if and only if they subscribe to the same methodology *and* if, according to that methodology, the one is superior to the other. What constitutes such an advance is clearly stated by Popper. It is not stated by Kuhn.

To summarize: Popper’s general methodology of science offers an explanation why generative theories are to be preferred as scientific theories to non-generative theories. Generative grammars are more fruitful theories for the advancement of scientific knowledge. It is for this reason that Generative Semantics is not a substantive advance over Generative Grammar and is a methodological regression.

This does not mean that Generative Semantics is without considerable attraction. It offers the linguist many as-yet-unanswered questions and provides him with limitless horizons of plausible theory to answer them. It also offers such excursions in theory at a very low cost in terms of explicitness and rigour. It is very much to be hoped, however, that linguistics will continue as a science and that fascination with theory and high critical standards of testing will continue to be its hallmarks.

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(Reply of R. S. Dougherty to appear in the next number Ed.)

REVIEW

**THE SMILE OF MURUGAN:
ON TAMIL LITERATURE OF SOUTH INDIA**

Kamil Zvelebil, Leiden E. J. Brill, 1973, pp. XVI, 378, With
3 Plates A Folding Map

F. Gros
Pondichery

Perhaps better known here for his innumerable articles on Dravidian linguistics, Dr. Kamil Zvelebil has also contributed, by many translations and less technical essays, to popularize Tamil and other Dravidian literatures out side India. The most magnificent contribution of this type is *The Smile of Murugan*, where Zvelebil puts his fairly secular and rationalist views under the invocation of the god Murugaṇ considered as “the Tamil deity *par excellence*” (p. 130); but, as an indologist, he must know that Murugaṇ is a rather ambiguous concept and, as the translator of C. Rakunātan’s *Pañcum paciṇum*, that his smile may be sometimes deceiving ! Though the author has “*emphatically*” told that he was not attempting any complete history of Tamil literature (p. xii), this selection of essays is, I am afraid, likely to be treated as such by many readers, whether they are or not in a position to question the choice of what appears to them, as an historical survey. Further the high standard of the book, printed by a leading international publisher, with a very good index and a substantial bibliography (limited to western languages), gives a somewhat “final” touch to considerations which the author himself is ready to discuss or has perhaps already revised, his conclusions being, usually, as boldly definitive in their wording as they are tentative in their process.

Here is a book, more outspoken than controversial, where the author’s personal interventions are always intertwined with the exposition of facts, at least by one adverb, often by longer digressions, details on the progress of the work, wonder, praise or indignation. It makes the text more lively and this will attract readers who, alien to Tamil, can throw a glance at tamilology in the making; but it

leaves it also more vulnerable (even the selection of plates, for being too personal, does not do full justice to the artistic achievements of Tamilnad). The author has a bias for unorthodox views, which accounts for his enthusiasm for the cittar, for his selection of modern fiction and poetry, for his approach to *bhakti* literature—if not original at least not traditionalist—and finally for trying to solve the chronological dilemma of Cankam age by the theory of two *Tolkāppiyams*. He is less inclined towards metaphysics or ritual than towards the secular trend of the Cankam and its humanistic and pragmatic ethics, on which he writes convincingly. He even enjoys its more gruesome aspects, because of their vividness, as in the *tuṇaṅkai* dance of *Tirumurukārruppaṭai*, but we may not follow the stretch of imagination which takes him from *pēy makaḷir* to human sacrifices and cannibalism in *Puram*, this requiring, as he says, “further and careful investigation” (p.127). In return, we see no harm in one illustration of modern poetry (p.324) which has infuriated another reviewer, surprisingly akin to Victorian puritanism. Above all, Zvelebil likes Tami poetry, enjoys it and makes us enjoy it through his comments, offering many samples, if good translations, specially his own or A. K. Ramanujam’s; this is a very attractive feature of the book, a poetic delight for which the question of likes and dislikes does not arise any more. Actually, it should not come at all, and if we have so far dealt with some subjective elements, it is only to underline the very personal style of the author, but he calls only for a strictly professional cross-examination, when introducing himself as one who “believe (s) in strict professionalism” (p. XII), a moot point being the very definition of a professional attitude, as no indologist can master equally well all the technical facets of indian culture.

As a linguist and philologist, Z. is at his best when he deals with a text, its language or structure. His chapter on *Analyzing classical poetry* or his presentation of the “Interior Landscape” through Nakkīrar’s commentary on Iṟaiyaṇār’s *Akapporuḷ* are clear, precise and accurate, whether the analysis is done in terms of linguistics or in the traditional Tamil pattern, and the selection of texts is appropriate. May I only suggest that p. 67 the tender shoot (*muḷai*) to which are compared the teeth of the girl depicted in *Kuṟuntokai* 119 are sprouts of *nāṇal* like in *akam* 212, 4–5, rather than the sprouts of new rice, as A. K. Ramanujam put it, and that in *Puram* 389. 4, Venus is expected rather than the silverfish (p. 82), because the rain is supposed to fail when this planet goes South? These are my only grievances against chapter five: I have also appreciated the pedagogic clarity of the many charts accompanying the theory of “Interior Landscape”;

it is a good text-book for English readers. (A lapsus on page 97 and on chart 10 gives sunrise for the time of *neytal* instead of nightfall, but it is corrected as evening in chart 11 and in the text p. 105). The chapter devoted to Kampan is similarly enlightened by a close up study of a few stanzas (see p. 214 s.) and the one on Aruṇakirinātar conveys the impression of musical perfection as analysed in a quatrain *Kantaranupūti* (p. 243-244). These two chapters (13 and 15) give us a good illustration of one of Z.'s ways of approach: rather than attempting "an over-all picture" of the work, he states briefly what we know about the poet and his date, without entering into the intricacies of the controversy, sketches out some important feature (such as: though a *Rāmāyaṇa* existed before Kampan, only his work remains and has exceeded the borders of Tamilnad) and then makes the greatness of the artist perceptible through selected samples of his poem. This rather unassuming presentation, almost a school teacher's one, still emphasised by the reckoning e. g. of the *four* properties of Aruṇakirinātar's poetry, is probably better than the accumulation of emphatic but general statements. And as each detail is important for a philologist, it may be pointed out that in the stanza quoted on p. 237 the Kāvēri is not "famous for its seven shrines" but "praised by the seven worlds", while the "lord of the fields" is the lord of Vayalūr, the name of a place about 4 miles West of Tirucirāppaḷḷi; on page 208, between the two definitions of the *uvacca* community, the second one (*pūjāri* of Kāḷiyamman's temple) seems more correct.

But the philological method cannot account for everything, and dealing with the *Tirukkuraḷ*, Z. has rejected as an appendix some considerations on its language, shrinking considerably the sanskritic vocabulary of the text after reexamination of the list of Aryan loan words established by S. Vaiyapuri Pillai, while he might have spoken more elaborately on the linguistic analysis of the text, as one associated with Yu. Glazov's monograph (*Introduction to the Historical Grammar of the Tamil Language*, Moscow 1967) and as the author of a preface for the recent *A Grammar of Tirukkuraḷ* by A. Dhamotharan (New Delhi 1972) but, obviously, on one side, the expected evaluation of the work is not a linguistic one, and, on the other side, Z. does not want to discuss its "ideology". Therefore he confines himself to a structural presentation of its content and to a rather bold literary verdict on its poetic (?) greatness.

His treatment of *Saiva bhakti* reflects the same cautiousness in front of religious or philosophical debates: a factual and clear presentation of the content of the *Tirumurai* introduces two attempts towards an analysis of *bhakti*. The second one, a structural analysis

of the texts into four segments [in his own words the interior state of the subject of the cult (S.) the external state of the subject of the cult, (S2) the respective reaction of the cult in relation to the subject (O₁) and the state of qualities or actions of the object of the cult irrespective of the given relation to the subject (O₂) can lead to some interesting comparative studies. but the first one, a sociological and perhaps sociopolitical approach makes the author strive to explain how the Bhakti may be at the same time an expression of social negativism and a factor of social integration. We may agree with his historical sketch and with his conclusion that the bhakti cannot be only "the literary expression of social protest" (p. 337), but why arise such a problem? I see no such difficulty when understanding the historical development in the light of a structuralist conception of renunciation such as the one offered long ago by Louis Dumont. By an oversight, Cuntarar is made responsible on p. 196 for the annihilation of 8000 Jains in Maturai, while it is by tradition credited to Campantar, the only early reference, a vague one being v. 74 of *Āḷuṭaiya Piḷḷaiyār* [another designation of Campantar]. Later statements of Periya Purāṇam Takkayākap paraṇi and its commentary are at variance and do not permit to stress out the legend as a historical fact. *Tiruvulāmālai* by Nampi Āṇṭār Nampi, has devoted many works to Campantar. It is also doubtful whether the *Sabha* of Tiruveṇṇainallūr should be referred to as a "caste panchayat" (p. 193) before which Cuntarar was made to appear. Incidentally, there is another version of the popular saying quoted p. 203 n. 2, according to which Cuntarar sung of *Gold* (pon) and not of *women* (peṇ), and this version is confirmed by some puranic tales where Cuntarar asks for gold (see v.g.o. V. Narayana Ayyar, *Origins and early history of Saivism in South India*, Madras, 1936, p. 465)

It is the treatment of Cankam literature which offers the best opportunity for Z. to blend happily linguistics, sociology and history. This is his field, and all the major results of the recent researches are utilised in order to display an up-to date panorama of the problem in which others' views are assimilated and some new solutions proposed. All this makes good reading therefore we will not hesitate to point out the details with which we may disagree. For example, two chapters are heavily indebted to K. Kailasapathy's recent thesis on *Tamil Heroic Poetry*, a part of chapter two on distinctive features of Tamil literature, and chapter seven on "Themes, motives, formulae". Kailasapathy has rightly insisted on the oral origin of the formulaic character of Cankam literature, but it does not follow that everything

means "oral poetry"; however Z. wants *kēlvi* "hearing", then "learning" to be the learning "specifically of the poets" (p. 13) and *kiḷavi* "utterance" to be "poetic utterance" (ibid.) most frequently, which is perhaps to go a little further than Kailasapathy (o. c. p. 125 and n. 3). Similarly, the translation of *akavunar*, *akavar* by "heralds" (p. 14) is perhaps too "etymological", and *akavan makaḷir* is translated more cautiously by Kailasapathy as "woman diviner-cum-poetess" (o.c. p. 110) and when one considers that each metre has its *ōcai* or 'rhythmic flow', one hesitates to speculate too much on *akaval only*..... If the psychological picture of the heroic world is convincing, the word *cāṇṟōr* is probably applied more often to the authors than to the heroes of the poems. On page 19 one should note that the context of *pulavar pukaḷnta nāṇ* in Akam 273, 15 is anything but heroic, and that the text given as *Puṟam* 36 is actually *puṟam* 182, 5-6 quoted twice. These are minor points. A more fundamental one will be our thanks to Z. for having carefully avoided in his *retractatio* of Kailasapathy's heroic world all the Homeric references: they are not only unnecessary but misleading. First because the *Puṟam* is not a long epic but a collection of short elegies, second because the more we insist on the parity of the Tamil heroic world with its greek counterpart, the more do we miss its most genuine character. And here comes another fundamental point, shadowed by the brilliance of Kailasapathy, but still raised by Z. : there is no *puṟam* without *akam* (cf. p. 21 or 103). While merely questioning K.'s statement (o. c. p. 189) that "pairing of love and heroic situations appears artificial", Z. might have insisted on the few important pages which K. has devoted to the "Unity of *akam* and *puṟam*" (o. c. p. 10-16) and which he himself illustrates by quoting from *Kuruntokai* (p. 111 f.); instead, he takes inspiration from the pages which reintroduce *akam* in an almost shameful manner at the end of the book (Z. p. 102-103 and K. p. 265 ff.) If one absolutely wants a Greek parallel, one should not look for any Homeric epos at the beginning of Tamil literature but only state that it shows the unique feature of having Pindar and Theocritus or Callimachus singing on the same tunes. This is more essential for a foreign audience than to question the "democratic spirit" of early Tamils in a rather confusing manner (see p. 15 and n. 1, p. 21 and p. 336), for it is never easy to treat a highly sophisticated literature as raw material for a sociological study, whatever may be the fascination of such endeavours. It is surprising, in contrast with his leaning towards historical or sociological considerations that Z. has not given any place in his book to medieval historical literature which can more easily be correlated with factual and inscriptional data such as Nantikkalampakam Kaliṅkattupparaṇi (mentioned for its style not its content), *Mūvarulā*, etc. Actually it has not met with an uneven favour in his own brand of professionalism.

But it is, indeed, the specificity of Cankam literature as such which is fully emphasized by the chapters already referred to in Interior landscape or Analysing classical poetry (ch. V and VI), and by a good summary of the essential thesis of Kailasapathy where themes, motives and formulae (ch. VII) are convincingly explored as the ultimate result of an age old technique of oral verse-making. That thesis has become fashionable although it remains irritating, perhaps by its allegiance to a typical western trend of literary criticism and by its unnecessary longing for old classical Greek tradition and ossianic cult of bards; but, first of all, because the emphasis on oral poetry overlooks two facts; one, what is relevant is less the opposition oral versus writing than the opposition between the stage of improvisation and the very moment when a poem becomes fixed, in writing or not, and therefore exists as a distinct entity free from its components - : two, it is only this very last stage which is within our reach, anything else being only a thrilling speculative quest. And, by the way, Z. has not given any factual content to the principles formulated (pp. 117-118) in order to discern "different chronological strata within the early anthologies", apart from the conclusions expressed on chart 40.

Even granting that the traditional formulae remain the basic structure of Cankam poetry, the individual achievement of the poets remains nonetheless a relevant question as soon as, in their use of formulae, they pass "beyond their purely functional use in composition to something that is almost purely poetical" (C. M. Bowra: *Heroic Poetry*, London 1964 ed., p. 240 ff.). Hitherto, this passage is dealt with too briefly, and that "something that-is-almost-purely-poetical" must be analysed in a more substantial manner, a difficult but probably rewarding job.

Jumping from literary criticism to literary history we come to the problems of dating (ch. III), to the Cankam legend (ch. IV) and to the pages devoted to late Classical Poetry and *Tolkappiyam* (ch. VIII and IX). The description of the texts, the way we assume that they were collected in anthologies (about the middle of the 8th cent.?) and still later in two greater anthologies, the work on them achieved by several generations of medieval commentators, and the recent history of their rediscovery and of the disputes on their dating are just routine material for tamilologists, and suffice it to say that Z. stands by the general accepted opinion on classical synchronisms between pre-Pallavan literature and Greco-Roman trade around the beginning of the Christian era and rightly maintains the Gajabāhu synchronism in general, ignoring the latest attack launched against it from Sri Lanka on the basis of folklore research on the

Pattinī cult by Gananath Obeyesekere (Gajabāhu and the Gajabāhu synchronism, an enquiry into the relationship between myth and history, in *The Ceylon Journal of Humanities* I, 1, January 1970 pp. 25-56). He pays due regard to one recent numismatic finding of R. Nagaswamy and R. Paneerselvam: a bilingual śātavāhana coin of about A. D. 170 in Prakṛt and Tamil which is in fact an important historical and linguistic document (pp. 38-39), and, of course, to the Tamil-Brāhmī rock-inscriptions. We do not deny their importance and their value as one more reliable general synchronism to put the earliest corpus of Tamil literature around the beginning of the Christian era; but before accepting that the two Pugaḷūr inscriptions (2nd. Cent. A. D.) give us the names of three Cera kings, heroes of the last decades of *Paṭiṛruppattu*, providing thus another sheet-anchor of the early Tamil chronology. We must refute if it is possible. For a contra view see K. G. Krishnan who rejects this identification on the ground that the names are not identical (Cera kings of the Pugaḷūr inscriptions, in *Journal of Ancient Indian History* vol. IV parts 1-2, 1970-71. *University of Calcutta*, pp. 137-143). For a note of caution about this epigraphic material about which too much has been said, before the most had been made of it, one should add to the bibliography given by Z. (pp. 39-40, 43-44) the article on *Content-Analysis of the Tamil Brahmi inscriptions* by N. Subrahmanian and R. Rajalaksmi, published in *Journal of Indian History*, vol. LI, part II, Aug. 73. (University of Kerala, Trivandrum) pp. 303-313 (see pp. 310-311 on Pugaḷūr inscriptions).

Anyway, the fact that the oldest strata of Tamil literature go back to 1st or 2nd Cent. B. C., is now well accepted, and we may even find at the end of the 4th Cent. B. C. the first allusion to a Pāṇḍyan legend in the Greek Megasthenes, and as the *terminus adquem* of the Cankam corpus is as late as the 7th Cent. A. D., when sets forth the *Bhakti* movement, it is obvious that some works must be earlier and some much later. But it is not easy to decide, and the criteria of selection may not get an universal assent. A clear evidence, as for *Cirupāṇāṛruppaṭai*, which quotes in retrospect the seven donors and the three kings and is obviously later than the texts devoted to them, is an exception (pp. 61, 64). But if it seems "to be the last composed in the series of the *Pattuppāṭṭu*" (p. 64), why to insist so much on the later dating of *Tirumurukāṛruppaṭai* (pp. 29, 125-130) with weaker arguments? In fact, among the four "rather late borrowings" quoted by Z., an Aryan loan-word as *tilakam* occurs twice in *Akam* (23-24 and 389-3), and when he writes that "according to U. V. Swaminatha Aiyar, most of the *Pattuppāṭṭu* manuscripts used by him for his edition do

not contain the text of this poem" (p. 130), I get from the introduction of U. V. S. A. to his edition (pp. xxvi-xxvii) a slightly different picture: the editor could get many manuscripts of the *Muruku* which is a devotional work among the few containing other material, this text occurs also more than once. Regarding its subject-matter, the ceremony of the *vēlan* is also described more vividly in the earlier *Aiṅkurunūru* than in the much later *Kallāṭam* (25), and if it is really not "older than about 550 600 A. D." (p. 130) "the relationship of *Murukan* to *Kor̥ravai*, the old mother-goddess of the Tamils" (p. 129) considered by Zvelebil as "much old, traditional material" has to be studied along with an almost contemporary reference in the *Harivamśa* where the goddess *Koṭavī* interposes her naked form between *Kṛṣṇa* and *Kumāra*! *Koṭavī* (sometimes *Koṭṭavī*) who protects *Kumāra* is no other than *Durgā*, sister of *Viṣṇu-Kṛṣṇa*! (cf. J. Filliozat, *Un texte de la religion Kaumāra, le Tirumurukāṟruppaṭai*, I. F. I., Pondichery 1973, p. p. xxviii xxxi). Arguing here also for the sake of arguing, I try less to question the later-dating of the *Muruku*, than to emphasize the complexity of the problem and the precarious and highly subjective results one may draw from the handling of incomplete and unascertainable data. I am inclined, also, to assign to *Paripāṭal* of a rather later date, for formal and external reasons, but the number of *purāṇic* stories in it is not a very good argument, neither the number of *aryan* loan-words (Z., p. p. 124-125): they are brought in by the very subject - matter and all the *purāṇic* stories incidentally picked up in other anthologies seem to display the same belief, the same references in almost the same words! By the way, I see no mention in *Paripāṭal* of *Tiruvēṇkaṭam* or *Tiruvanantapuram* (Z., p. 125), the first occurs only in the Commentary of *Patirruppattu* 31, and both in XI canto of *Cilappatikāram*. I do not feel sorry if Z. has not much regard for the poetical value of *Paripāṭal*, for which Father X. S. Thani Nayagam is all praise in his *Nature in Tamil poetry*: however, it is there that, along with the *Muruku*, we get the first samples of *Tamil bhakti*: but it looks as if, in *The Smile of Murugan*, *vaiṣṇavism* is ignored, even under the garb of *Tirumāl*.

On *Tolkāppiyam*, Zvelebil gives the reliable and detailed account one expects from the most accurate translator of this text and shows that he is not only conversant with the *nūrpā*, but with the commentators who are also studied in a separate chapter (on "the prose of the commentators"), a very clear outline of the various types of commentaries which should be read first along with the chapters devoted to *Cankam*, my only suggestion being that (cf. p. 256) there is some ground to think that the *Pērācīriyar* who wrote the commentary of *Tolkāppiyam* may not be the author of

the commentary to *Tirukkōvaiyār*, the conception of the figures of rhetorics being rather opposed. This is a moot point, to introduce another more disputed dichotomy urged by Zvelebil between an *ur-text* of *Tolkāppiyam* probably limited to its first two books, belonging to c. 150 B. C., and the present version to which the *Poruḷatikāram* is now added, not earlier than the 5th cent. A. D., and probably later than *Iraiyāṇār's Akapporuḷ* which Zvelebil considers as the earliest poetics of Tamil. The reconstruction of an *ur-text* is in itself questionable, and the hypothesis of interpolations in the extant version of *Tolk.* has been resorted to several times, not always without bias. But there is, after all, some sense in considering that *Tolk.* is only the work of a scholastic group, almost coeval to the duration of the Cankam age itself, because it is, so to say, its linguistic consciousness. This might be one way to keep the text as we have received it, knowing that it has been tampered with, but aware of our incapacity to rectify it. Zvelebil prefers to call for surgery; it is a temperamental decision, which allows him also to bring down the date of the latest version as late as his arguments (pp. 143-145) require, without frustrating the traditional view that *Tolkāppiyam* is one of the oldest, or the oldest Tamil work. But even then, I am not sure that it will be welcome.

Personally, I am still waiting for more clarifications on the relative chronology of *Iraiyāṇār's Akapporuḷ* and the *Poruḷatikāram*. Zvelebil is often drawing our attention on *Kaḷaviyal* commentary, from which he cites several pages but the article he has written on it in the *Indo-Iranian Journal* (XV 2, 1973, pp. 109-135, the earliest account of the Tamil Academies). although promising to "take up the matter where it was left by Aravamuthan forty years ago", has not brought anything substantially new. Even the dates given for the *Pāṇṭikkōvai* remain those of Aravamuthan, indebted to his references only (o.c.p. 123 n. 53), which are now outdated by 45 years, in the sense that K. A. N. Sastri's refusal to see in *Arikēsari Parāṅkuca Māṇavarman* the hero of the *kōvai* (*The Pāṇḍyan Kingdom*, London, 1929, pp. 54-55) is now challenged by R. Nagaswamy (*Prof. K. A. N. Sastri Felicitation volume*, Madras, 1971, p. 108.), K. V. Raman (*Sri S. Subrahmanya Ayyar Endowment Lectures*, 1971-72, p. 6), and even N. Subrahmanian (*History of Tamilnad*, Madurai, 1972, p. 118). Therefore, if we accept this identification i. e. if we accept that the *kōvai* is an original part of Nakkīrar's commentary (which still remains doubtful), and if we accept his account of the transmission of the text, we will fix the date of *Iraiyāṇār's Kaḷaviyal* as not later than A. D., 450-550 which seems reasonable, and still that suits Z's views. But, while

he wants the *Poruḷatikāram* to be one later, I see no reason to reject the statement of Pērācīriyar who says clearly that *mutanūl* has not necessarily got any chronological significance (contra Zvelebil p. 86) and that the *Kaḷaviyal* has received this denomination in spite of its being a later thing: *piṛkālattup perumāṇaṭika! kaḷaviyal ceytāṅkuc ceyyinuṁ piṛkālattā um mutanūlāvatenpatu arivittarkum* (Pēr. ur. Tolk. Poruḷ, marapiyal 94). The question remains now whether that account establishes definitely that the *Tolkāppiyam* should not be later than 4th or 5th Cent. A. D. I suppose that Zvelebil considers this as a very slender evidence :

But at least he fights vigorously against those who want to split the *Cilappatikāram* into two, considering the third canto as a non-functional appendix ! One chapter of 12 pages on that epic, which he has translated once in his mother-tongue, is too short when one considers that a recent bibliography of the work (*Cilappatikāra āyvaṭaṅkal* by Ira. Kācirācaṇ, Kerala Univ. Tamil Dept., 1973) has collected more than 200 authors and 400 entries. Anyway, Zvelebil offers historical comments, a lively narration of the story, a deep insight into the structure of that tragedy and some reflections on the symbolism of the anklet. It might have been useful for English readers to refer to the *paṭikam* which enumerates the three truths which the poem is supposed to illustrate : death will be the sanction of kings who swerve from their duty, the cult of the chaste *pattinī* should be spread to everybody, and the fate has to be fulfilled. The reference to the folk themes and the *pattinī* cult are welcome, but the two quotations from Cankam literature given as an evidence of the early occurrence of the theme are not convincing. *Narriṇai* 216 is not very clear, and *Puram* 278, where a mother threatens to cut her breast if her son runs away from the battle field, is far-fetched. Regarding the *pattinī ceyyūḷ* quoted by several commentators, one stanza only is available, quoted under No. 1431 in Mu. Irākavaiyaṅkāṛ's *Peruntokai*.

With the chapter on the *Cittar*, Z. initiates his western readers to a rather difficult but fascinating subject. Those who want a more detailed anthology of the *Cittar* songs will get it in another work of him, *The poets of power*: London (1973). The subject is not entirely new, as the French indologist Auguste Barth had already pointed to the readers of his chronicles the originality of that movement, while the first volume of *The Indian Antiquary* or Gover's *Folk Songs of Southern India* contain some poems, with rather important variant readings when we compare their texts with the popular editions now available. Unfortunately all these editions of the *Cittar ṇānak kōvai* give us the

same haphazardly collected heterogenous data with which we remain on the threshold of the true problems. While we get through Z's enthusiastic presentation an easy access to the most popular and universal aspects of Cittar's teaching and a hint at their poetical achievement, we entirely miss the technical and historical background which should allow us to make a reasonable assessment. Cittar may be free-thinkers and individuals gifted with a curious mind and an elusive personality in quest of the powers. They are also pertaining to an all India mediaeval tradition permeated by many late accretions. Z. has done as much that could be done without technical know-how in one of the most technical fields of Tamil literature.

Two chapters on origins of modern Tamil prose and on Tamil renaissance build up the bridge between the prose of the commentators and the prose of to-day, and Z. is most probably right when he insists on the fact that the main stream if not the only one of modern Tamil prose is "the stream of pedantic, traditional, polished, severe scholastic writing, fed by commentatorial prose". One guesses he regrets it, but he also pays a homage to the great contributions of traditional scholars like Minakshisundaram Pillai, even when his preference goes to the "deliciously colloquial language" of Anandarangam Pillai's *Diary*. He tells the importance of the development of printing, the growth of Tamil journalism, the place of missionary activities, but offers no comment on the linguistic value, say of a comparative study of the first translations of Bible and other early Christian pamphlets; the various churches having various linguistic creeds of their own, it should be possible to make interesting studies on some developments of Tamil prose. Suryanarayana Sastri has been named only in passing, but his *Mana vijayam* gave to G. Subramania Iyer in 1902 the opportunity to write an english introduction which might have been an interesting document for Z's readers. It starts "Pandits are no doubt estimable persons, but if the Vernacular literature of the country is to be improved and made an effective instrument of popular education, they are not the persons who can do it" and it goes on pleading for the revival of Tamil. If some aspects of the "Tamil renaissance" are already almost classical accounts, like the landmarks of Tamil novel, Vedanayagam Pillai, and Rajam Iyer, or the activities of the Madurai Tamil Cankam founded in 1901, the narration might easily take a more militant shape with Maraimalai Aikal and the Pure Tamil Movement.

The last two chapters of the book do not make any attempt to provide us with a balanced panorama of modern literature. Already the survey of the Tamil renaissance ended with some

iconoclastic considerations and definitive verdicts, but here comes a kind of journalistic essay on a limited selection of authors supposed to represent the most valuable trends of the prose of to-day and of the New poetry in a polemical and provoking style, deliberately intended to call for contestation. It will get it, but its impact on Tamil readers will remain limited, this book being beyond their reach, and known to them through the type of partial reviewing Z. seems to ask for, while his English readers will not be in a position to assess the correctness of his views. Anyway, it is his choice and he likes it. This attitude shows more courage than the clever escape of P. N. Appuswamy who could introduce a collection of Short Stories [*The Plough and the Stars*, the composition of which is rightly questioned by Z.] without telling a single word about them! And let me say also to some angry Tamil readers that Z.'s selection does no harm to their literature in the mind of foreign audience, in the sense that it makes it a more living one and nearer to them. But let me say also to Z. that I am not yet sure that his selection deserves to be put at par with Tamil classics, and that, therefore one might have expected here, perhaps, a more thoroughly balanced survey, like the too short one T. P. Meenakshisundaram has just written for the Symposium on *Indian Literature since Independance* (Sahitya Akademi, New-Delhi: 1973), because I am sure that he can be more academic without losing his pugnacity. I enjoy his presentation of the new poetry and find informative his profile of some contemporary trends, but why to leave such small flaws as the rather candid reconciliation of the traditional *cittirakkavi* with the not so daring instance of a kind of *calligramme* as the one cited (p. 331)? Z. knows certainly that the poem he has selected will appear as a very crude and elementary child-play in front of the pan-Indian and age-old tradition of *cittirakkavi*, represented in Tamil even nowadays, as an example, by a *Cittirakkavi mālai* composed in praise of the famous actor Ti. Ka. Caṇmukam by P. V. Abdulkafūr Sahib Pulavar, in 1956 (Auvaiyakam, Madras). The new feature of the poem cited by Z. is not any graphic achievement, but an attempt to link the visual form of the poem with its possible inner meaning, and such research is a well concerted step away from the tradition. Critical studies of contemporary writing exist even at the University level (see, e.g., the collection of Tamil papers published by N. Sanjeevi on *Indian Freedom and Tamil Literature*, Univ. of Madras 1974) which provide us with further data; but in his two last chapters, as well as for the composition of the entire book, Z. has always claimed his right to be selective, and it must be granted that he should not be condemned for any omission.

I would rather say that he should be praised for some of them, but no argument *a silentio* should be pressed too far ! As it remains clear that the last few pages which deal mostly with contemporary problems are intended to be thought-provoking for “internal” use within Tamilnadu, while they are received more coolly by the “external” readers, they should be made available for discussion in India in some other shape. The contest may be hot between Z. and his critics, but ultimately it should allow both parties to come back to a more positive and unassuming attitude in their love for Tamil studies, such as the one suggested by Ñānakkūttan when he writes in Anru vēru kīlamai (collection o poems, Madras 1973) :

enakkum tamiltān mūccu ānāl piṛarmēl ataiviṭa
māṭṭēn.

(For me also Tamil is the life-breath: but, I shan't breathe it on others.) (English Translation Ed.)

CONVERSATIONAL KANNADA

(a Microwave approach) : By U. P. Upadhyaya and
N. D. Krishnamurthy (Dharwar, India : Bharatiya Sahitya
Mandira, 1972. pp, xv, 380. Rs. 32)

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In recent years, due to the acceptance of three-language formula by the State Governments, there has been a growing interest among the people and encouragement by the Government to learn the language of other States. A south-Indian language has been included as the third language in the formula by many Northern States. In this context, *Conversational Kannada* by Upadhyaya and Krishnamurthy is a rewarding effort in the direction of providing a volume on one of the South-Indian languages which may be used as a textbook for teaching and learning the third language by people of other States. Though there were books prepared earlier by other scholars for learning this language, the present one is a welcome addition in that it follows an entirely new approach of presentation known as the Microwave approach.

The essentials of the Microwave approach designed by Mr. David J. Burns, the Central Language Officer for the Peace Corps, consists in what is called in their jargon a Core material which represents a structural skeleton of the language, arranged from simple to complex. The patterns of the language are presented in this method using 'universal' high frequency vocabulary. The material is organized in units which treat first all aspects of the noun phrase before going on to the more complicated patterning of the verbal systems.

The material was prepared originally for teaching the American Peace Corps Volunteers. The authors believe however that this material may also be of use "for non-Kannada speakers to learn the spoken form of Kannada" (p. vii). The book is meant by the

authors "to help the learner to grasp not only the structure of the language, but also the cultural peculiarities of the Kannada-speaking people" (p. viii). Some alterations therefore could have been made to make it more suitable for the Indian context. Proper names like Peter, Jack, translations like 'sauce' for *saaru* (p. 113 C2), place names like California and vocabulary items like *dormitory* (p. 91 V), *corn flakes* (p. 280) could have been replaced by suitable items.

The contents of the book are arranged in 5 units each of which is further divided into 10 cycles. There are review conversations at the end of each unit excepting the last one. There are at the end 4 appendices, one each on 'Content Analysis,' 'A Note on Kannada Phonetics,' 'A Note on Kannada Script,' and 'Useful Vocabulary List'. The system of transliteration employed in the book is given at the beginning (pp. xi-xii). Some general information about the language and the design of the cycles are presented in the preface to the book.

The segments of the language presented in each unit are accordingly: i) verb-less sentence and expansion of noun phrases, ii) tense forms of verbs, iii) negatives, modal verbs, participles, and other non-finite forms, iv) perfect and continuous forms of verbs, various adverbial phrases, and v) complex and compound sentences, certain idiomatic expressions. The fifth unit is called self-discovery unit and the order of components is slightly changed here. Except the last one which is smaller unit of only 45 pages in print, the remaining are more or less well-balanced and cover each about 60 pages.

The components of a cycle presented in the order are: Topical Focus (the general theme), Grammatical Focus* (specific structures and grammatical elements of importance), Rituals (high frequency utterances which have practical everyday conversational value), Interrogatives (question words which help the learner for self-discovery), Model sentences (4 to 8 sentences, illustrating essential grammatical patterns), Conversations (possible situations in which the basic grammatical items occur in real life), Vocabulary (new items presented), Teacher's Notes (instructions to manipulate and expand conversations), Learner's Notes (explanation of some of the important relationships between linguistic form and culture), Grammatical Notes (description of the 'form' the language takes and the 'function' of the forms for the language analyst), and Supplements (sound drills, reviews, etc.).

Each unit presents a sequenced and related grammatical items covering a major segment of the language and each cycle focuses on one or two structures.

The authors think that the material presented in the book will serve for an intensive course of two months or 50 working days at the rate of 3 hours per day. If used in a college or a school, this can form a textbook for a course of one academic year of two semesters.

Regarding the variety of Kannada employed in the book, the authors have the following to say: "The speech form selected for this book is the one used in the formal speech of the educated people of the Southern part of the State. This is very close to the literary form of the language excepting in certain verbal terminations and sound changes" (preface vii). Of the two authors, Mr. Upadhyaya hails from Coastal dialect area, but graduated in Kannada from a university outside the State of Karnataka. Mr. Krishnamurthy comes from the Southern dialect area, but studied for some time in Karnatak University which is in the Northern dialect area. This combination probably accounts for the kind of mixture in the language presented in the book.

Kannada, as any other language, shows local, social, and stylistic variations. The authors, being themselves linguists, are not unaware of this. To mix forms and usages of different dialects would therefore only confuse the learners. It is not always the formal speech of the educated people of the Southern part which is consistently employed through the book. We may note here only some instances of such mixtures.

i) The authors have recognized -utte form as an alternant of -atte form (p. 117 GN), but it seems that they prefer forms with -atte in their material: iratte (p. 71 GN2), tinnatte, kuḍiyatte (both on p. 104 M1), nagatte, naḍiyatte (both on p. 105 M3). While forms with both the endings may be found in the Southern dialect, -utte forms (irutte, tinnutte, nagutte,) belong to the speech of the educated.

ii) The neuter plural forms irtava (p. 71 GN2), meeytave (p. 257 C), naḍitava (p. 272 line 6) are not used in the educated speech. Instead the forms irutve, meeyutve, and naḍiyutve are used.

iii) In Standard Mysore speech there is difference between pairs of words like hoodraa 'did (you) go?' and hoogidraa 'have(you) been?', nooḍdraa 'did (you) see?' and nooḍidraa 'have (you) seen?', malgidru '(they) slept' and malgiddru 'were asleep'. The authors appear to employ the first members of these pairs (of the punctual aspect) in the sense of the second members (durative aspect), e. g. hoodraa (p. 126 line 1), malgidru (p. 111 last line).

iv) Similarly, for standard forms with a single [d] we have, in the material, forms with a geminate as in *elliddiiri* and *alliddiini* (both on p. 67 C1), *iddaare* (p. 201 C1). On the other hand, for forms showing a geminate in the educated speech, the authors use preferably forms with a single consonant, [l], in *kuutkoḷi* (p. 7 R), *tagoḷi* (p. 73 R), *toḷkoḷi* (p. 112 R), though they are aware of the standard forms and use them in later cycles, *kuutkoḷli* (p. 201 C1), *meaḍkoḷli* (p. 261 line 2fb), *toḷkoḷli* (p. 262 line 10). For *tagoḷi* they also have *takkoḷli* (p. 262 line 13) which is used by a different social group.

v) The second syllable of the trisyllabic and quadrisyllabic verbal forms have a long vowel in the educated speech for which the corresponding substandard forms have short vowels. The authors use the latter, *kuḍitiira* (p. 98 C1), *kuḍitiini* (p. 106 Sc), *haritu*, *muritu* (both on p. 133 C2). They are aware of the variation: "the root vowel is optionally lengthened before *ri*" (p. 154 GN1). For standard variety, however, it is not optional.

vi) The authors use, in the negative, punctual forms to mean a durative, *gottee illa* 'I didn't know it' (p. 141 C2) for *gottee irlilla*. There are also other substandard usages among the negatives: *aaḍalla*, *baralla*, *hoogalla*, *malagalla* (p. 104 M2). The standard forms have an [o] in the penultimate syllable of these forms.

vii) In the place of a present continuous form the text has a non-continuous form: *naḍiyatte* (p. 157 C2 for *naḍiitide*), *kaliitiddiiri* (p. 204 S line 3 for *kaliitiddiiri*).

viii) Verb forms *uuḍu* 'to yoke' (p. 6 S), *kūuḍtini* (p. 91 C3), *kūuḍtaare* (p. 96 line 4), *oodboodu* (p. 287 line 7fb), *barbavdu* (p. 288 line 13), and nouns *oḍe* (p. 113 C1-but *vaḍe* on p. 285 line 4fb), *mey* (p. 129 R), *have* (p. 83 M5), *kūuḍo-(jaaga)* (p. 212 C1), *uḍgire* (p. 278 line 14), interrogatives *yaarella*, *yaavdella* (both on p. 22) are not used in the speech of the educated people.

ix) Among the nouns too we may notice many forms of substandard speech. In the standard speech, forms with an aspirated consonant correspond to forms with an unaspirated consonant in the substandard speech: *eṣṭottige* (p. 77 line 2fb for *eṣṭhottige*), *aṣṭottige* (p. 163 V for *aṣṭhottige*), *kate* (p. 7 M1 for *kaṭhe*), *maṭa* (p. 11 S for *maṭha*), *paṭa* (p. 274 line 15). By the side of these we also find the standard forms, *paṭha* (p. 152 C2), *sulabha* (p. 288 line 6).

x) The authors note that 'before *n*, the word final vowel is optionally lengthened' (p. 10 GN5), e. g. *maneenaa/manenaa*. Here again the standard speech employs the lengthened form *maneenaa*, not optionally, but obligatorily.

xi) Final vowels of words are optionally dropped : *klaasinda bandu*, *klaasind bandu* (both on p. 162 C1): *beeg bartiini* (p. 162 C2), *beega aafisig* (p. 161 C3), *eenu iṣṭa* (p. 150 Q5), *een koḍbeeku* (p. 150 Q7). It appears to me that the final vowel is dropped generally in the spoken form. This kind of alternation side by side may be confusing to the beginner.

xii) In the place of a long vowel the authors have so metimes a short vowel as in these words : *papaya*, *mosambi* (p. 24 V for *papaaya* and *moosambi*), *ṭomaṭo* (p. 39 C3 for *ṭomaṭo*), *payjama* (p. 13 V for *payjaama*).

xiii) The material also contains written forms : *maneyal-lirtiiraa* (p. 68 C4), *magnannu* (p. 97 M2), *horaḍuvaaga* (p. 224 C3 besides *baroovaaga*, *aḍoovaaga* on p. 225), *dayaviṭṭu* (p. 132 LN5), *aameele* (p. 262 line 16), *ideyaa* (p. 18 C1). There are written forms alternating with spoken forms : *hattu rupaayi* (p. 135 C1), *ayd rupaay* (p. 136 C3).

xiv) In standard speech, the personal pronouns when functioning as attribute will generally be in the plural if the head is a noun like *house*, as in *nam manee*, *namdu ... manee*. But the verb employs *nan manee* (p. 28 C1), *namdu ... manee* (p. 34 C1), *nan maneg*, (p. 223 C1).

xv) The later vocabulary lists often include items already listed once in earlier cycles : *uuru* (pp. 9, 13, 29), *naayi* (pp. 9, 19), *haḷeedu* (pp. 19, 29), *baaḷe haṇṇu* (pp. 24, 29).

xvi) The utterance listed under the ritual is generally used again in the conversation. But in Cycle 23 the ritual is not so used in the conversation. Some conversation sequences are a bit improper: e. g. C2 on p. 135 goes like this:

B. *nange iḍḷi beeku*. 'I want idlis'.

A. *eraḍu iḍḷi saakaa* - 'Are two idlis sufficient to you?'

B. *eraḍu saaldu, naalku beeku* - 'Two are not sufficient I need four'.

(Here A is the server, B is the customer.)

C2 on p. 196 goes like this:

B. *adakke huccu hiḍidittu* - 'It was mad'.

A. *adara aaroogya cennaagittaa* - 'Was its health alright?'

B. *monne adakke jvara bandittu* - 'It had got fever day-before-yesterday'.

C2 on p. 263:

A. boora een maaḍkotiddaane.

B. avnu uuṭa maaḍkotiddaane.

xvii) The book has side by side liiv nooṭu (p. 189 M1), ripoortu (p. 189 M2) and such blends as nooṭ pustaka (p. 183 C3), vrundaavan tooṭa (p. 227 Sb).

There are several printing mistakes in English words as well as in Kannada words, some of which may be mentioned here.

is (p. 30 GN2, p. 101 GN for *in*), that (p. 102 M3 for *this*), tet (p. 153 TNa M1 for *let*), end- (p. 31 GN3 for *ending*), from (p. 36 LN2 for *form*), or (p. 64 TNb for *and*), rising (p. 318 line 13 for *raising*), shore (p. 321 line 3 for *call*), tham (p. 341 line 2 for *than*), my (p. 144 line 2 for *your*), his (p. 144 line 3 for *your/my*).

yaara (p. 7 M5 for *yaava*), iige taane (p. 114 V for *iig taane*), projekt (p. 87 last line for *praajekt*), taglitaa (p. 130 C2 for *tagaltaa*), madraasiddu (p. 126 C7 for *madraasindu*), bartirtiini (p. 202 last line for *bariitirtiini*), chikkappa (p. 367 for *cikkappa*), eennaag (p. 284 line 3fb for *cennaag*).

The English glosses of the two sentences GN(B) and GN(C) on p. 42 are probably reversed.

The above few comments do not however undermine the value of the book. The method of presentation, it seems to me, is good and the grading of grammatical information from simple to complex has rendered the volume very useful. There is much scope for the student participation in making out further conversation sequences. The two appendices at the end, 'A Note on Kannada Phonetics', and 'A Note on Kannada Script' have further enhanced the usefulness of the book. The book would have probably been more valuable if the authors had used only the formal speech of the educated people of the Southern part of the State, consistently through out the material, as they had decided at the beginning.

*References are cited with the initial letters of these terms underlined here. fb = from the bottom

INDO-ARYAN LOANWORDS IN OLD TAMIL

S. Vaidyanathan, M. A., Ph. D.

Rajan Publishers, Madras-21, pp. 217

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Early contact between the Indo-Aryan and the Dravidian languages has been a subject of inquiry for a long time; one expects that the efforts of indologists and the linguists in this field should bear some fruits, not only in matters of greater detail and more data but also in refinement of technique and identification of methodological issues. Sources of the vocabularies of the early Indo-Aryan, Dravidian and Munda languages, mutual borrowings, the nature of assimilation and the semantic content of the lexical items have been the major tools for exploring the contact and convergence among the diverse cultural traditions in the prehistoric periods of Indian history. Dr. Vaidyanathan's *Indo Aryan Loanwords in Old Tamil* is a doctoral dissertation; it was originally confined to the Indo-Aryan loanwords in the Caṁkam literature. It has been now revised to include the loanwords in Tolakappiyam, Cilappatikāram and Tirukkuraḷ and it presents the IA loanwords in Old Tamil of the first three centuries of the Christian era.

This work is divided into seven sections: Old Tamil (OTa) texts, phonology of OTa, methodology, doubtful items, accidental similarities, classification of data and conclusions.

It should be borne in mind, however, that the six hundred and odd loanwords from Indo-Aryan into Old Tamil recorded here are based on the evidence of these literary works mentioned above. The nature of these texts has considerably determined the types of the lexical items which are borrowed. That the borrowed words are restricted to fields such as nature, dress-colour-ornaments, kingdom - polity - warfare, society - domestic - economic - religion -

education etc. is largely due to the nature of the texts which dealt with these topics. It is possible that words from many other fields might have been borrowed but there was no room for these items in these texts. Only a close examination of the sets of borrowings among the three language families, Indo-Aryan, Dravidian and Munda, rather than a list of literary loans in Old Tamil of the first three centuries of Christian era, could give us a clearer picture of the nature of the culture contacts among the speakers of these languages. Moreover, a clear distinction should be made between literary loans in a given period and borrowings in the spoken colloquial varieties. The author has restricted himself to listing the loanwords found in a set of texts of the first three centuries, he does not even give us the information whether the literary loan recorded in Old Tamil has survived either in modern literary Tamil or in modern colloquial Tamil, and, if it has survived what is its phonological structure and semantic content. To set up phonological correspondences (as the author has proceeded to do) on the basis of literary loans alone, and especially when one could have obtained evidence from the spoken colloquial, is likely to result in presenting a number of confusing sets.

That the author has run into such problem in his sets of correspondences can be seen from a few examples :—

Sanskrit -p- is replaced by O Tamil -p-, -v- and -m-:

-p- OTa. yūpa (p. 22, no. 1)

-v- OTa. tova (p. 24, no. 11)

-m- OTa. tāmoniyam (p. 29, no. 18)

Just as Sanskrit words were borrowed from Sanskrit literature, Prakṛt words may also have been borrowed from Prakṛt literature. The author has, therefore, cited the Prakṛt form alongside with the Sanskrit form; but here, again, the author has not presented any evidence as to why a particular form should be regarded as a literary loan from Prakṛt rather than Sanskrit; evidence from modern colloquial Tamil could have helped.

E.g. (p. 30, nos. 32, 33)

Skt. sthala- Skt. sāla

MIA thala- MIA sāla

OTa talai OTa sālai

It is known that phonologically MIA -l- was a retroflex -ḷ-, as it has survived in many IA languages such as Gujarati, Marathi, Oriya, etc. MIA did not have a graphic symbol -ḷ-, but OTa, did

possess a graphic symbol -ḷ- (as suggested by the author in his section on the 'Phonology of Old Tamil'); one wonders whether the borrowing was from one literary form to another literary form, i.e. Prakṛt to Old Tamil in which a Prakṛt grapheme was replaced by the corresponding Old Tamil grapheme; information regarding whether these items are pronounced with a retroflex lateral in modern colloquial would be helpful in determining such problems (some of the entries do turn up with -ḷ- in OTa, see Skt. tāḷam p. 127; Skt. māḷava OTa māḷuvam p. 127).

Similarly the replacement patterns,

| Skt. | | OTa |
|----------------------|---|-------|
| h- | > | Ø |
| and | | |
| s- }
ṣ- }
c- } | > | c-, Ø |
| and | | |
| j- }
ch- } | > | c-, |

where the voiced and breathy affricates are always replaced by OTa c while the sibilants and voiceless affricate are replaced either by c or Ø. One would like to know what is the situation in modern colloquial Tamil: are all sibilants and voiceless aspirates replaced in these items by Ø or by c? Is it possible to see some relative chronology in these replacement patterns whereby the first, the initial sibilants, were lost first and later the voiced and the breathy affricates were replaced by c-? These questions can be answered if the data from colloquial Tamil is presented and the attention is focussed on colloquial usage rather than on the contact between literary styles and borrowings from literary sources. Some of the borrowings have clearly MIA stamp, and the author has rightly noticed it, e.g. Sk. ājñā, OTa āṇai (p. 48, no. 173), Skt. sphaṭika OTa paḷimku (p. 49, no. 184).

The problem of determining the source of a lexical item has been left untouched by the author. Under the section on 'methodology' the author has given his 'method' of references and citation and presentation of the date. He has, of course, summarized the opinions of various scholars regarding whether the source is IA, Munda or Dravidian, but he has neither analysed the evidence in any detail nor focussed attention on the methodological issues involved. When the source of any such lexical item is in question, the direction

of the argument and the recommendation as to the probable source are fairly predictable in the cases of scholars such as Thieme, Emeneau, Burrow and Kuiper. Thus, when we have

Skt. ulūkhala - 'a wooden mortar'

OTa ulakkai - 'pestle',

the question arises whether this is derivable from

*urū - khara 'broad stamping ground' the -ra in khara - can be explained as a formative, suffixed to kha-'hole, empty space', on the analogy of -ra in

Skt. kuñja - kuñjara-

uṣā - uṣara - (Thieme)

or, it is a Dravidian item in Sanskrit (Burrow and Emeneau)? Similarly,

Skt. piṇḍa - 'A ball of food offered to the deceased'

OTa piṇṭam 'A ball of rice offered to the deceased ancestors' are comparable to Munda words with the radical element *bi-ḍa, *bu-ḍa, *ba-ḍa which might explain some of the modern Indo-Aryan words bhiṇḍi, pēḍā, etc. Similarly,

Skt. manda - mārutam

OTa manta- mārutam.

Munda, Santali banda-, bhaṇḍol 'slow' Skt. manda- and manthara- which have no IA cognates are derivable from Ta. Ka maddi 'dull', or from Munda sources, or can we relate them to the IA *mando-s? There are scores of such examples where the ingenuity of the scholar may determine the source-sifting the inherited from the borrowed requires more cautious approach and greater methodological rigour. Recent efforts at the decipherment of the Indus script have also shown that etymologizing can be stretched to suit almost any proposal; this is especially hazardous where language contact is used as a tool to prove the culture contact. Dr. Vaidyanathan has announced two more publications on the treatment of loanwords in Tamil; let us hope that a discussion of methodological issues will follow the present publication which is a limited list of literary loans in Old Tamil.

SEMINAR ON DIALECTOLOGY – PAPERS AND DISCUSSIONS

Ed. V. I. Subramoniam Asst. Eds. P. Somasekharan Nair and
B. Gopinathan Nair. Publishers: Dravidian Linguistic Association,
Trivandrum, 1973. Price Rs. 12.00 \$ 3.00

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The Dravidian Linguistic Association, Trivandrum, was the host to an All India Consultative Seminar on Dialectology in the last week of February 1973. It was a hard-working seminar remarkable for its orderliness and welltimed papers. More than forty scholars attended the seminar and the fact that many of them came from institutions where dialect study is actively pursued provided it with additional scope and variety. The book under review is the outcome of this seminar which was primarily an attempt to arrive at a proper methodology for future survey works.

The book contains seven papers prepared by scholars working in the line. An Introduction highlighting the importance of dialect study, the discussions which followed the presentation of papers, the addresses given in the inaugural session and the recommendations of the seminar also find place in this book.

Prof. V. I. Subramoniam, in his illuminating introduction, indicates the importance of a complete and definite survey of all the languages in India, the place of dialects in language and the usefulness of dialect study.

Of the seven papers presented two are on dialect studies so far undertaken in India, two on the theoretical aspects of dialect studies, one on tribal dialect survey, one on tools of dialect survey and the last one on the socio-linguistic aspects of dialect studies. The first paper is a sincere effort to survey the dialect studies so far undertaken in India. The references on dialects found in early

literary works, travelogues, census of India and studies based on modern linguistics are neatly summarized. It also gives us an idea that something is being done in this branch of Linguistics in most of our languages. But in many cases the information supplied is too scanty. The paper immediately following the first one is mostly a repetition of what has been said in the previous one. The latter however deserves credit in that it gives in its conclusion a useful summary of the techniques and methods followed in Indian dialect studies.

The third paper 'Methods and Principles in Dialect Survey' discusses the theoretical aspect of dialectology. Postulating the term 'dialect' as representing any speech variant, spoken or written, of a single language, it gives in clear terms the different dimensions which are relevant in dialect study and the factors that are responsible for the emergence of dialects. The next paper is slightly off the track and leaves out basic principles in dialectology. Excessive theorizing have made it rather clumsy. Though revolutionary in many a point it is doubtful whether it serves any purpose in a book of this sort.

'The tools for dialect survey' is a well-written paper. Some of the ideas presented are too preliminary as in the case of the distinction between direct method and indirect method. As pointed out by the author the tools required will vary according to the scope of the survey which in its turn depends on the resources available. It has however to be pointed out that all or most of the tools mentioned in this paper can be effectively used even if the scope of the survey is limited.

The paper 'Tribal Dialect Survey' lists the tribes speaking Dravidian tongues, the number of speakers in each of them and the areas in which they are found. Though the list given is not exhaustive, as the author himself has admitted, it gives a picture of the existing situation and offers a basis for future planning for a survey of the tribal dialects. It also indicates the directions in which tribal dialects can be studied and the importance of such studies in the peculiar situation in India. The paper stresses the need for adopting survey methods fitting with our environment instead of blindly copying the work done in European countries, a point on which there can be no disagreement.

The last paper is a survey of Socio-linguistic methods. It may be noted here that socio linguistics is not directly connected with dialect studies. It can however be treated as an aspect which may be given consideration in the theory behind dialectology. As seen from the paper its relevance is questionable in the practical aspect

of dialect survey. The phenomenon of free variation, for instance, which Labov and his colleagues are not willing to believe, is one we cannot ignore in our survey work.

The discussions which follow the papers reveal the interest scholars have in dialectology and also the differences in their approach to the problems involved in it. It brings home the urgent necessity to have some sort of machinery to co-ordinate the dialect survey work attempted by our academic bodies.

The recommendations of the seminar which are included in the book as an appendix deserves sympathetic consideration by the Central Government. Establishment of an Indian Council of Linguistic Sciences Research (ICLSR), organization of a Dialect Survey Institute, an intensive and extensive review of the work done in the field of Dialect Survey in India and abroad are the major recommendations. These will definitely be highly useful in furthering the study of dialectology which has now gained an important place as a branch of linguistics dealing with the functional aspect of languages.

The book is of immense value to the students of dialectology especially in a country like ours where still there are many languages in the spoken form only. It could have however been better if more stress was given to some of the practical aspects of dialectology, viz., the preparation for the survey involving the construction of work sheets of different types, the historical and geographical factors in planning the grid, principles of informant selection and elicitation, different aspects of dialect analysis, editing and display.

The editor of this book and his assistants deserve all praise for the fine job they have done in bringing together the ideas of various scholars and presenting them in a commendable manner.

H. S. Gill

University of Patiala

This is a collection of papers presented at the Seminar on Dialectology held in Kerala in 1973. In spite of the fact that as it often happens, this conference too brought together a number of people who had not only different points of view but also different linguistic interests in dialectology or to be more precise, no interest at all in dialectology, the editor has done an excellent job in bringing out the salient features of the discussions held. Since most of the scholars present were interested in Dravidian linguistics, this booklet may be considered as the latest document on the

development of Dravidian studies in our country. If there is one theme of this publication, it is certainly the state of affairs of linguistic studies in South India. It is surprising that the authors of the various papers and the editor of this booklet who directed the discussions to a definite goal could include so much wealth of information on certain specific issues along with the number and the names of dialects in different southern States and the pivotal linguistic position held by a large number of what goes under the name of tribal dialects.

This conference was divided into four sessions. The first session devoted itself to the survey of the dialectal work done and being done in India. There are two papers in this session. The first is by J. Neethivanan and the other by R. V. K. Thampuran. Neethivanan begins with the historical background in ancient Dravidian and Aryan works and makes an effort at linking modern studies with the classical tradition of linguistics in India. Followed by this introductory note he points to the importance of Grierson's survey and then moves on to give a brief information of what is happening in modern India. His information about the work done in the Dravidian area may be complete but his references to Bengali, Marathi, Gujarati and Panjabi leaves much to be desired.

The second paper by Thampuran is very short, but he gives a fairly detailed account of what is going on in the Telugu area and also at the project of the Deccan College, Poona. The discussion part of this section is very weak since those who intervened did not follow the theme of the session to give more information about the dialectal work being done and mixed the problems of methodology with some ethnographic information which was not necessary in this session. Only Professor Subramoniam presented the problem in the right perspective, but his intervention was at the end of the discussion and so obviously it could not set the tone of the discussions right.

The second session was devoted to the Methods and Principles of Dialectology. There are again two papers. The first is by D. N. S. Bhatt and the second by A. P. Andrews Kutty. Bhatt's perspective is historical and he has tried to correlate speech variations with other social, geographical, temporal factors or due to what he calls acquisition, contact and attitude. Bhatt has no idea of what a dialect survey is supposed to be. He carries further the tradition of misunderstanding began by Grierson who was the first person to misuse the term "linguistic survey." He did not make maps of any given region which was the first and the foremost object of a

survey being adhered to even in his own times on the continental Europe. So there can be no excuse that he was only a beginner. Gielleron's Atlas of France appeared several years earlier followed by a number of other geographical works in Germany and Denmark. Grierson followed the notion of dialect or variation as was provided to him in popular folklore. His project cannot be called linguistic either, since none of the descriptions given in his volumes stand the test of even the old-fashioned phonetics. Unfortunately, this fallacious project propagated a continuous tradition of linguistic misunderstanding in India comparing different locally-recognized dialects, for historical inferences cannot be covered under the theme of dialect survey. And this is exactly what Bhatt has been doing. This is the nineteenth century comparative philology and must not be confused with dialectology which begins from the geographical work done on the continental Europe. Apparently, there are very few Indian linguists who have ever had a good look at a series of linguistic maps: otherwise there would not be incessant discussions about idiolect, dialect and language like a broken record. None of these three concepts has any operational value in the context of linguistic geography. No linguistic atlas since the pioneering work of Gielleron has shown two similar corresponding maps in the same region. In fact continental dialectology was the first blow to comparative linguistics, especially as far as the regularity of the phonetic correspondences is concerned. For a detailed account, references may be made to the chapter on dialectology in B. Malmberg's book "*Trends in Modern linguistics*" and Martinet's book "*Economie des changements phonétiques*".

The third session is devoted to a discussion of the Tools for Dialect Survey. There is only one paper by B. Gopinathan Nair of the University of Kerala. It is a detailed account of the type of questionnaire one should have for a dialect survey and probably gives a description of what has been going on in Kerala. The presentation is lucid and covers a large number of practical problems that any team of linguistic survey might face at any time. Under "questionnaire", he discusses the issues of pictures or photographs, the problems of imitation and completion and also of the eliciting of verbs in a paradigmatic manner and, finally, the problem of homonymy. Even though he discusses such ordinary details as the name of the informant, his age and address, his occupation, education, marital status, length of residence, etc., they are quite useful points likely to be ignored even by some competent investigators. He goes on further to discuss the system of indexing and of making frequency charts. He also takes up

the issue of dialect maps and dialect dictionaries. Perhaps at the time of the writing of this paper the author had not seen the linguistic maps prepared by the University of Kerala, otherwise he would not have made frequent references to the constancy of dialectal features. It also depends on the number of points investigated. The speech variation can be best seen if the survey covers practically every village in the area as was done at Patiala. If the points covered are quite distant from each other, the purpose of the survey is lost and then it is a matter of describing the locally recognized communities and cases with pre-determined speech divisions. One thing that a linguistic survey brings to a sharp focus is the enormous variation in speech which does not continue from one item to another or, in other words, from one map to another. Mr. Nair has also pointed out the importance of tape-recorders and tapes, grafting machine, symbol stamps and, finally, the problem of technical team of the investigators.

The discussion which followed this paper is also very interesting. The first comment is the most valuable made by Upadhyaya, who begins his statement: "Dialect study and dialect survey should be distinguished. I wish this statement had been thoroughly investigated by the scholars who gathered at Trivandrum". Unfortunately, this is not the case. We come back again and again to dialect studies based on what may be called idiolects. This has nothing to do with linguistic geography where the main pre-occupation is to spot linguistic variation across a certain given region.

The fourth session is devoted to tribal dialect survey and Socio-linguistics. S. Bhattacharia has given a detailed account of seventy-two communities in South and Central India. This is based on the Census of 1961. The tables are followed by an interesting discussion of the various problems of tribal survey. It includes a number of pious and well-wishing statements which are welcome, but we wish there was a little more of theoretical discussion of the issues involved.

The last paper is a very short note on socio-linguistics. There is no definite point raised in this paper except a short introduction to American activity in this field which is only an excuse to reintroduce historical linguistics leashed on the old theory of "strata" and has nothing to do with sociolinguistics. The glaring example in this context is that of W. Labov. The discussion on these two papers is useful in the sense that it completes a number of points which were either not covered at all in the first paper or were left incomplete according to some of the speakers.

As I pointed out at the very beginning, this booklet* is incomparable in terms of the wealth of information it gives about the dialects and languages of South India and also about what is going on in Dravidian linguistics. It has also thoroughly investigated the various possibilities, sometimes conflicting, of any dialect survey scheme. The students might find some difficulty in arriving at certain definite conclusions, but when a number of scholars get together one should never expect clear directions. All one can hope from such a gathering is the condensed form of different conflicting and contradicting statements. The editor deserves all praise for organizing this seminar to give the Indian scholars the opportunity to discuss linguistic issues which are generally not raised on the Indian soil.

* *Seminar on Dialectology* Ed by V. I. Subramoniam *et al* DLA Publication No. 13

GRAMMAR OF AKANAANUURU WITH INDEX

S. V. Subramanian, Published by the Dept. of Tamil,
University of Kerala, Trivandrum, (March, 1972) pp. 1-132, 1-352.

M. Isreal

Madurai University

This book is an outcome of an attempt to prepare the descriptive grammar of the language of AkanaanuuRu applying the modern linguistic principles. It is a welcome addition to the study of Tamil linguistics and hence it will be of immense use to those who are engaged in research in the language of Caṅkam age and to those who are interested in the project of preparing the historical grammar of the Tamil language.

The work consists of two parts, of which the first one is devoted to the grammar of AkanaanuuRu (pp. 1-132) which is followed by an errata of two pages and the second the index of AkanaanuuRu which is followed by an errata of six pages and a bibliography of about one page.

In the first part there are seven divisions, of which there is no uniformity in the classification and treatment of the subjects. For instance under the section Colliyal (morphology), peyar (nouns) is dealt with, whereas Vinai (verbs), KuRippu vinai (Appellative verbs), iTai (clitics) uriccol are dealt with in different sections, though they also deserve treatment under morphology with different sub-heads in order to elucidate their position in the grammar and the relationship among them.

In the second part, the words are arranged in the order of Tamil alphabets. They are given in Tamil as well as in English transliteration with meaning in Tamil and "gloss" in English. References are also cited as to their occurrence in the text.

The syntax is not taken up for the study.

The author has enumerated the phonemes, vowels as well as consonants, described them and stated their distribution. While stating

their environments, the positions initially before vowels and consonants, medially after and before vowels and consonants and finally after vowels and consonants have been considered. The consonantal clusters have been exhibited in a chart (pp. 1-31).

In the section on PuNarcci he has described two kinds of PuNarcci. He has correlated the internal as well as external sandhi with PuNarcci. Sufficient examples are also cited to elucidate the sandhis in AkanaanuuRu (pp. 32-35).

He has divided the words in Tamil as the authors of classical grammars have done. The word-classes are defined. ITaiccol and Uriccol are considered as separate word-classes. With regard to the classification of "peyar" into sub-classes, the traditional grammar is followed (pp. 36-65).

The author has exhaustively enumerated the stem alternants found in the text (pp. 66-72).

Verb is defined in the best way possible. They are classified into simple and complex verbs. Verbal stems are classified into three sub-classes on the basis of their taking past tense markers. The tense markers are also analysed (pp. 73-88).

The structure of negative verbs is described and the suffixes of the derived verbal nouns are identified and enumerated (pp. 89-97).

The verbal participles are classified and their markers are analysed in detail (pp. 98-106).

The imperatives and the optatives are also discussed briefly (pp. 106-107).

Conjugated nouns are defined and illustrated (pp. 107-109).

The Person and Number markers are enumerated under different Persons and Number-genders (pp. 110-116).

Relative participles are discussed and their suffixes are analysed (pp. 117-123).

The so-called appellative verbs are considered and their stems are analysed in detail (pp. 123-127).

ITaiceol is defined and its different types are enumerated with exhaustive examples from the text (pp. 128-131). Uriccol is defined and its three different types are accounted. A list of uriccol occurring in the text is included (pp. 131-132).

The author has introduced the linguistic terminologies to the maximum possible extent and has attempted to interpret the grammar from the linguistic point of view. But in a few instances the full

spirit of the definition of the terms as per the linguistic theories is not adopted by the author.

He has translated eZuttu as phoneme (p. 1). This cannot be accepted fully. Further he has treated /g/ as a phoneme (p. 13). Is it possible to treat it as a separate phoneme, if the linguistic theory is applied? The treatment of aaytam as a separate phoneme (p. 29) is also not acceptable. Thus while listing the inventory of phonemes he has followed the traditional grammarians.

In p. 36, the word-classes in Tamil are discussed where the author has accepted the term "col" as defined in the traditional grammars. The term "col" in the grammatical words is not a corresponding one to the term "word" used by modern linguists. The word, according to linguists, is the minimum free form, whereas the term "col" includes not only the words like nouns, verbs, particles, etc., but also bound morphemes, i. e., affixes which are treated under iTaiccol.

The classification of part of speech is allowed only at the word-level. The part of speech of a word is that of its stem. Since the affixes which are also included under iTaiccol are not words, iTaiccol, as a whole, does not form a separate part of speech. Thus the iTaicolis may be classified into affixes and particles. ITaicolis like case markers, tense markers, etc. which are mere inflexional affixes and which mark the different word-classes cannot be treated as words.

In p. 86 piRavinai is translated as transitives. All the transitives are not piRavinai. Hence the term cansative verb or even transitive-causative may be used as equivalent to piRavinai to suit its definition better.

Clitics is the term used by the author for ITaicol (Ref. pp. 36, 127, 128). ITaicol includes both affixes and bound stems. Thus though clitics and affixes are bound forms, clitics do not include affixes where the grammarians include affixes like Case marker, inflexional increments, tense markers, etc., under iTaiccol. Then the use of the term clitics as equivalent of iTaicol is not acceptable. Clitics are bound stems. They are semi-free and semi-bound at the same time. Pike identifies them as semi-free words.

Further clitics are morphologically bound particles having syntactically pertinent distribution. The affixes included under iTaicol are actually markers at the morphological level. Under iTaicol the grammarians treat the affixes and the particles which are uninflected words. Clitics may form a sub-class of particles.

The classification of the compound clitics into prefix, suffix or infix may not be acceptable as they are not affixes. They may respectively be termed as proclitics, enclitics and inclitics. In the Dravidian languages there is no infix in its strictest sense. Hence the use of these terms is ambiguous and misleading.

In pp. 36, 131 and 132, uriccol is treated as a separate word-class. The definition of uriccol found in p. 131 is questionable.

Uriccols, as a whole, do not form a separate part of speech. Descriptively many of the uriccols enumerated in the grammatical works are verbal roots; a good number of them are nouns formed of nominal roots; some others are derived nouns, formed from verbal, adjectival or nominal roots and a few others are qualifiers. Thus there are only a few words which cannot be classified under nouns, verbs or particles.

A few of the statements which are not to be acceptable from the linguistic point have found a place in the study.

E. g. p. 1. phonemes rise from the navel.

p. 110. suffixes which are denoting the Person and Number markers are called vikuti.

Some other statements require further clarity and elucidation, i.e., they need precision for the sake of clarity.

pp. 66-68. It is better to indicate the position of the alternating part of the stems by marking hyphens before, after or before and after.

e.g. aRan > aRam -n > -m
uLam > uLLam -L- > -LL- and so on.

p. 87. There are two tenses in AkanaanuRu. (There is a two-way distinction of tense in the language of AkanaanuRu.) p. 92. Derived verbal nouns are those which will include both past and non-past.

Though an errata of about eight pages is included in the book, mistakes are found sporadically without being mentioned even in the errata.

p.1. century

p.31. cluster of p-m

p.37. splitted

p.65. yāvai is not found in 155-1 as referred to

p.66. ai + am kaalai > kaalam

p.66. kaalm

p.110. markes

p.128. delt.

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|---|---|
| 1. Place of Publication | Trivandrum |
| 2. Periodicity of its Publication: | Biannual |
| 3. Printer's Name : | V. I. Subramoniam |
| Nationality : | Indian |
| Whether citizen of India : | Yes |
| (If foreigner, state the Country of origin) : | |
| Address : | V. I. Subramoniam, Professor and Head of the
Department of Linguistics, University of Kerala,
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| (If foreigner, state the Country of origin) : | |
| Address : | Department of Linguistics, University of Kerala,
Trivandrum. |
| 6. Name and address of individuals who own the newspaper and partners or shareholders holding more than one per cent of the total capital : | Professor of Linguistics, University of Kerala,
Trivandrum. |

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